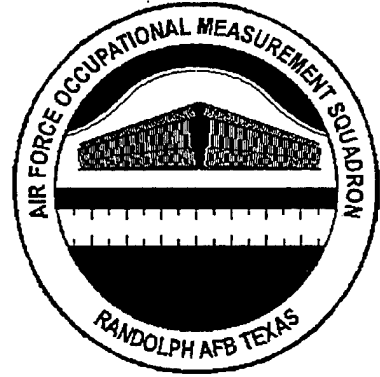


DTIC



UNITED STATES AIR FORCE

OCCUPATIONAL SURVEY REPORT

19980116 115

VISUAL INFORMATION

AFSC 3V0X1

AFPT 90-3V0-088

NOVEMBER 1997

OCCUPATIONAL ANALYSIS PROGRAM
AIR FORCE OCCUPATIONAL MEASUREMENT SQUADRON
AIR EDUCATION AND TRAINING COMMAND
1550 5TH STREET EAST
RANDOLPH AFB, TEXAS 78150-4449

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335 TRS/TRRA (600 HANGAR ROAD, ROOM 123, KEESLER AFB MS 39534-2235)	3	1	3	3

TABLE OF CONTENTS

	<u>PAGE NUMBER</u>
PREFACE	vi
SUMMARY OF RESULTS	viii
INTRODUCTION	1
Background	1
SURVEY METHODOLOGY	2
Inventory Development	2
Survey Administration	3
Survey Sample	3
Task Factor Administration	3
SPECIALTY JOBS (Career Ladder Structure)	6
Overview of Specialty Jobs	7
Group Descriptions	7
Summary	16
ANALYSIS OF DAFSC GROUPS	16
Skill-Level Descriptions	17
Summary	27
ANALYSIS OF MAJCOMs	27
TRAINING ANALYSIS	30
First-Enlistment Personnel	30
TE and TD Data	34
Specialty Training Standard (STS)	41
Training Program of Instruction (TPI)	43
JOB SATISFACTION ANALYSIS	46
IMPLICATIONS	50

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TABLE OF CONTENTS
(Tables, Figures, Appendices)

	<u>PAGE NUMBER</u>
TABLE 1 MAJCOM DISTRIBUTION OF AFSC 3V0X1 PERSONNEL	4
TABLE 2 PAYGRADE DISTRIBUTION OF SURVEY SAMPLE	5
TABLE 3 AVERAGE PERCENT TIME SPENT ON DUTIES BY CAREER LADDER JOBS	9
TABLE 4 SELECTED BACKGROUND DATA FOR SPECIALTY CLUSTERS AND JOBS	10
TABLE 5 DISTRIBUTION OF DAFSC 3V0X1 GROUP MEMBERS ACROSS SPECIALTY JOBS (PERCENT RESPONDING)	18
TABLE 6 AVERAGE PERCENT TIME SPENT PERFORMING DUTIES BY DAFSC 3V0X1 GROUPS (RELATIVE PERCENT OF JOB TIME)	19
TABLE 7 REPRESENTATIVE TASKS PERFORMED BY DAFSC 3V031 PERSONNEL	20
TABLE 8 REPRESENTATIVE TASKS PERFORMED BY DAFSC 3V051 PERSONNEL	22
TABLE 9 TASKS WHICH BEST DIFFERENTIATE BETWEEN DAFSC 3V031 AND DAFSC 3V051 PERSONNEL (PERCENT MEMBERS PERFORMING)	23
TABLE 10 REPRESENTATIVE TASKS PERFORMED BY 3V071 PERSONNEL	25
TABLE 11 TASKS WHICH BEST DIFFERENTIATE BETWEEN DAFSC 3V051 AND DAFSC 3V071 PERSONNEL (PERCENT MEMBERS PERFORMING)	26
TABLE 12 PERCENTAGE OF TIME SPENT ON DUTIES BY 3V0X1 MAJCOM GROUPS	28-29
TABLE 13 RELATIVE PERCENT OF TIME SPENT ON DUTIES BY 3V0X1 FIRST- ENLISTMENT PERSONNEL	31
TABLE 14 REPRESENTATIVE TASKS PERFORMED BY FIRST-ENLISTMENT PERSONNEL	33
TABLE 15 TYPES OF MEDIA USED BY 20 PERCENT OR MORE OF 3V0X1 FIRST- JOB OR FIRST-ENLISTMENT PERSONNEL	35
TABLE 16 ELECTRONIC IMAGING SYSTEMS USED BY 5 PERCENT OR MORE OF 3V0X1 FIRST-JOB OR FIRST-ENLISTMENT PERSONNEL	35
TABLE 17 ELECTRONIC IMAGING SYSTEMS SOFTWARE USED BY 30 PERCENT OR MORE OF 3V0X1 FIRST-JOB OR FIRST-ENLISTMENT PERSONNEL	36
TABLE 18 EQUIPMENT USED OR OPERATED BY 50 PERCENT OR MORE OF 3V0X1 FIRST-JOB OR FIRST-ENLISTMENT PERSONNEL	37

TABLE OF CONTENTS (CONTINUED)
(Tables, Figures, Appendices)

	<u>PAGE NUMBER</u>
TABLE 19 FUNDAMENTALS OF DRAWING USED BY 20 PERCENT OR MORE OF 3V0X1 FIRST-JOB OR FIRST-ENLISTMENT PERSONNEL	38
TABLE 20 FORMS USED BY 10 PERCENT OR MORE OF 3V0X1 FIRST-JOB OR FIRST-ENLISTMENT PERSONNEL.....	38
TABLE 21 TECHNICAL TASKS RATED HIGHEST IN TRAINING EMPHASIS (TE) BY AFSC 3V0X1 PERSONNEL	39
TABLE 22 TASKS RATED HIGHEST IN TASK DIFFICULTY (TD) BY AFSC 3V0X1 PERSONNEL	40
TABLE 23 EXAMPLES OF 3V0X1 STS ELEMENTS NOT SUPPORTED BY SURVEY DATA (LESS THAN 20 PERCENT MEMBERS PERFORMING)	42
TABLE 24 EXAMPLES OF TECHNICAL TASKS PERFORMED BY 20 PERCENT OR MORE AND NOT REFERENCED TO THE 3V0X1 STS	44
TABLE 25 EXAMPLES OF TPI, AFIS-BGR, BASIC GRAPHICS PRODUCTION ELEMENTS NOT SUPPORTED BY SURVEY DATA (LESS THAN 30 PERCENT MEMBERS PERFORMING)	45
TABLE 26 EXAMPLES OF TECHNICAL TASKS PERFORMED BY 30 PERCENT OR MORE AND NOT REFERENCED TO THE TPI, AFIS-BGR, BASIC GRAPHICS PRODUCTION	47
TABLE 27 COMPARISON OF JOB SATISFACTION INDICATORS FOR AFSC 3V0X1 TAFMS GROUPS IN CURRENT STUDY TO A COMPARATIVE SAMPLE (PERCENT MEMBERS RESPONDING)	48
TABLE 28 COMPARISON OF JOB SATISFACTION INDICATORS FOR MEMBERS OF SPECIALTY CLUSTERS AND JOBS (PERCENT MEMBERS RESPONDING).....	49
FIGURE 1 AFSC 3V0X1 SPECIALTY JOBS (N=366).....	8
FIGURE 2 DISTRIBUTION OF AFSC 3V0X1 FIRST-ENLISTMENT PERSONNEL ACROSS SPECIALTY JOBS (N=82).....	32
APPENDIX A SELECTED REPRESENTATIVE TASKS PERFORMED BY MEMBERS OF CAREER LADDER JOBS	51
APPENDIX B TASK MODULES FOR CAREER LADDER JOBS.....	53

PREFACE

This report presents the results of a detailed Air Force Occupational Survey of the Visual Information career ladder, Air Force Specialty Code (AFSC) 3V0X1. Authority for conducting occupational surveys is contained in AFI 36-2623. Copies of this report and pertinent computer printouts are distributed to the Air Force Functional Manager, the operations training locations, all major using commands, and other interested operations and training officials.

The survey instrument was developed by Mr. Donald Cochran, Inventory Development Specialist, with computer programming support furnished by Mr. Tyrone Hill. Mr. Richard G. Ramos provided administrative support. Ms. Cynthia V. Luster, Occupational Analyst, analyzed the data and wrote the final report. This report has been reviewed and approved by Lieutenant Colonel Roger W. Barnes, Chief, Airman Analysis Section, Occupational Analysis Flight, Air Force Occupational Measurement Squadron (AFOMS).

Additional copies of this report can be obtained by writing AFOMS/OMYXI, 1550 5th Street East, Randolph AFB Texas 78150-4449, or by calling DSN 487-5543. For information on the Air Force occupational survey process or other on-going projects, visit our web site at <http://www.omsq.af.mil>.

GEORGE KAILIWAI III, Lt Col, USAF
Commander
Air Force Occupational Measurement Sq

JOSEPH S. TARTELL
Chief, Occupational Analysis Flight
Air Force Occupational Measurement Sq

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SUMMARY OF RESULTS

1. **Survey Coverage:** The Visual Information career ladder was surveyed to obtain current task and equipment data for the career ladder since the merger of AFSCs 231X0, Audiovisual Media, and 231X1, Graphics, and for use in evaluating and validating current training. Survey results are based on responses from 366 respondents. Responses were received from 73 percent of all eligible AFSC 3V0X1 visual information personnel. All major using commands are well represented in the survey sample.
2. **Specialty Jobs:** One cluster and four independent jobs (IJs) were identified in the sample. The IJs were directly involved in performing the technical duties and tasks pertaining to visual information and graphics operations. The remaining cluster reflected a combination of technical and supervisory task performance, and training activities.
3. **Career Ladder Progression:** Personnel at the 3- and 5-skill levels perform many tasks in common, and both groups spend the vast majority of their relative job time performing technical visual information and graphics tasks across a number of different jobs. At the 7-skill level, although members still perform a substantial amount of routine day-to-day visual information and graphics tasks, a shift toward supervisory functions is evident.
4. **Training Analysis:** Matching of tasks to the Specialty Training Standard (STS) indicates very good support by career field members. Only 3 areas in the STS display less than the recommended percent members performing (20 percent) matched tasks. These areas should be reviewed to determine any modifications or additions required to improve training. Matching of the tasks to the Training Program of Instruction for Basic Graphics Production indicates marginal support by career field members. Nine behavioral objectives were not supported by the recommended percent of members performing (30 percent) matched tasks. These areas should be reviewed to determine any modifications or additions required to improve training.
5. **Implications:** The primary technical orientation of this career ladder lies in the Visual Information Graphics Job. The day-to-day responsibilities of the Air Force visual information or graphics personnel include: preparing viewgraph slides, charts, and graphs; designing layouts, and coordinating with customers. Personnel in the Visual Information Graphics Job make up the bulk of the career ladder and perform a job broader in scope than any other job identified in the career ladder. Members of the Visual Information specialty appear fairly satisfied with their jobs, revealing generally positive responses in all five job satisfaction indicators.

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**OCCUPATIONAL SURVEY REPORT (OSR)
VISUAL INFORMATION CAREER LADDER
(AFSC 3V0X1)**

INTRODUCTION

This is a report of an OSR of the Visual Information career ladder completed by the Air Force Occupational Measurement Squadron (AFOMS). This survey was conducted to collect current data for use in evaluating the impact of changes since the merger of AFSC 231X0, Audiovisual Media, and AFSC 231X1, Graphics, effective 31 October 1992; and to validate training requirements and verify changes within the career ladder since the merger. In October 1992, AFSC 231X0, Audiovisual Media, was subsumed into AFSC 231X1, Graphics, and the career ladder was renamed Visual Information Media. The last survey report for the AFSC 231X0, Audiovisual Media career ladder, was published in January 1982; for AFSC 231X1, Graphics career ladder, the last OSR was published in January of 1992. Since the merger in October 1992, there are no current data for AFSC 231X1, Visual Information. On 31 October 1993, this AFSC was directly converted to the current AFSC 3V0X1 to conform to the new enlisted specialty coding nomenclature.

Background

As described in AFMAN 36-2108 *Specialty Descriptions*, dated April 1997, 3- (Apprentice) and 5-skill (Journeyman) level personnel in this career ladder are responsible for: preparing artwork, sketches, charts, and layouts for publications, presentations, displays, training, visual information production, and medical requirements. They operate visual information equipment; use different types of media, electronic imaging systems and software; and use fundamentals of drawing for preparing and using visual information aids, and audio or video recordings. Additionally, the specialty description for 7-skill level (Craftsman) includes members supervising and directing presentation activities.

Entry into the career ladder is from Basic Military Training School through course E5ABD3V031, Visual Information Apprentice (AFIS-BGR), an 11-week, 2-day formal training course conducted at Ft Meade, MD. This is an "all" services course, to include Air Force, Army, Marine, and Navy members. Resident ABD training includes: introduction to graphics, lettering, basic drawing, and perspective; applying basic and illustrating techniques; reproduction methods and processes; visual communication; and graphic imaging systems.

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SURVEY METHODOLOGY

Inventory Development

The data collection instrument for this occupational survey was USAF Job Inventory (JI) AFPT 90-3V0-088, dated June 1996. A tentative task list was prepared after reviewing pertinent career ladder publications and directives, tasks from the previous survey instrument, and data from the last OSR. The preliminary task list was refined and validated through personal interviews with 17 subject-matter experts (SMEs), selected to cover a variety of major commands (MAJCOMs) at the following operational bases:

BASE	REASON FOR VISIT
Fort Meade MD	Location of Defense Visual Information School (DVISCH) resident operations training school.
Langley AFB VA	Has a base-level graphics function, a headquarters (command) function, and a video teleconferencing function.
Charleston AFB SC	Location of 1st Combat Camera Squadron, frequently called the "eyes of the eagle" Combat Camera team; maintains the highest combat readiness, responsiveness, and world class imaging capabilities. All 3V0X1 mobility and contingency operations are the responsibility of this unit.
Armstrong Laboratory, Brooks AFB TX	AFMC base with 3V0X1 medical support responsibilities; performs many of the same activities as a base graphics shop.
Lackland AFB TX	Largest user of medical illustrators in the Air Force; performs "audiovisual" activities for Wilford Hall.

The resulting JI contained a comprehensive listing of 380 tasks grouped under 11 duty headings and a background section requesting such information as paygrade, duty title, functional area, geographical area, equipment used or operated, electronic imaging systems and electronic imaging system software used, fundamentals of drawing techniques used, and forms used.

Survey Administration

From August 1996 through February 1997, base training offices at bases worldwide administered the inventory to all eligible AFSC 3V0X1 personnel. Members eligible for this survey consisted of the total assigned 3-, 5-, and 7-skill level population, excluding the following: (1) hospitalized personnel; (2) personnel in transition for a permanent change of station; (3) personnel retiring during the time the JIs were administered to the field; and (4) personnel in their job less than 6 weeks. Participants were selected from a computer-generated mailing list obtained from personnel data tapes maintained by the Air Force Personnel Center.

Each individual who completed the inventory first completed an identification and biographical information section and then checked each task performed in his or her current job. After checking all tasks performed, each member then rated each of these tasks on a 9-point scale, showing relative time spent on that task, as compared to all other tasks checked. The ratings ranged from 1 (very small amount time spent) through 5 (about average time spent) to 9 (very large amount spent).

To determine relative time spent for each task checked by a respondent, all of the incumbent's ratings are assumed to account for 100 percent of his or her time spent on the job and are summed. Each task rating is then divided by the total task ratings and multiplied by 100 to provide a relative percentage of time for each task. This procedure provides a basis for comparing tasks in terms of both percent members performing and average percent time spent.

Survey Sample

Personnel were selected to participate in this survey so as to ensure an accurate representation across MAJCOMs and paygrade groups. Table 1 reflects the MAJCOM distribution of eligible and sampled AFSC 3V0X1 personnel as of July 1997. Table 2 reflects the paygrade distribution for personnel. While Table 2 shows differences between percent eligible and the percent in the survey sample of "E-1 to E-3" and "E-4", these differences in percentages do not effect the representativeness of the sample nor do they impact the findings, but rather exemplify the random selection of respondents. The 366 respondents in the final sample represent 73 percent of the total eligible personnel. As reflected in this table, the survey sample is a good representation of the career ladder population.

Task Factor Administration

Job descriptions alone do not provide sufficient data for making decisions about career ladder documents or training programs. Task factor information is needed for a complete analysis of the career ladder. While most participants in the survey process completed a USAF JI, selected senior AFSC 3V0X1 personnel were asked to complete booklets providing judgments on task

TABLE 1

MAJCOM DISTRIBUTION OF AFSC 3V0X1 PERSONNEL

<u>COMMAND</u>	<u>PERCENT OF ELIGIBLE*</u>	<u>PERCENT OF SAMPLE</u>
ACC	30	31
AETC	10	10
PACAF	9	11
AMC	8	10
USAFE	8	10
AFMC	6	5
AFSPC	7	7
AFSOC	3	2
OTHER	19	14

Total Eligible - 502*

Total Surveyed in Sample - 366

Percent of Eligible in Sample -73%

* Eligible strength as of July 1997

TABLE 2
PAYGRADE DISTRIBUTION OF SURVEY SAMPLE

<u>PAYGRADE</u>	<u>PERCENT OF ELIGIBLE*</u>	<u>PERCENT OF SAMPLE</u>
E-1 to E-3	22	14
E-4	26	37
E-5	30	29
E-6	14	13
E-7	7	7

NOTE: Columns may not add to 100 percent due to rounding

* Eligible strength as of July 1997

training emphasis (TE) or task difficulty (TD). The TE and TD booklets were processed separately from the JIs. The information gained from task factor data is used in various analyses and is a valuable part of the training decision process.

Training Emphasis (TE). TE is a rating of the amount of emphasis that should be placed on tasks in entry-level training. The 22 senior NCOs from the career ladder who completed a TE booklet were asked to select tasks they felt required some sort of structured training for entry-level personnel and then indicate how much training emphasis these tasks should receive, from 1 (extremely low emphasis) to 9 (extremely high emphasis). Structured training is defined as training provided at resident technical schools, field training detachments, mobile training teams, formal on-the-job training (OJT), or any other organized training method. There was agreement among the 22 raters as to which tasks require some form of structured training and which do not. The average TE rating was 2.27, with a standard deviation of 1.58. Any task with a TE rating of 3.85 or above is considered to have high TE.

Task Difficulty (TD). TD is an estimate of the amount of time needed to learn how to do each task satisfactorily. The 27 senior NCOs who completed TD booklets were asked to rate the difficulty of each task using a 9-point scale (i.e., extremely low to extremely high). Interrater reliability was excellent, indicating very strong agreement among raters. Ratings were standardized so tasks have an average difficulty of 5.00, with a standard deviation of 1.00. Any task with a TD rating of 6.00 or above is considered difficult to learn.

When used in conjunction with the primary criterion of percent members performing, TE and TD ratings can provide insight into first-enlistment personnel training requirements. Such insights may suggest a need for lengthening or shortening portions of instruction supporting entry-level jobs.

SPECIALTY JOBS (Career Ladder Structure)

The occupational analysis process begins with an examination of the career ladder structure. The structure of jobs within the Visual Information career ladder was examined on the basis of similarity of tasks performed and the relative percent of time spent ratings provided by job incumbents, independent of other specialty background factors.

The first step in the analysis process is to identify the structure of the career ladder in terms of the jobs performed by respondents. The Comprehensive Occupational Data Analysis Programs (CODAP) assists by creating an individual job description for each respondent based on the tasks performed and the relative amount of time spent on the tasks. The CODAP automated job clustering program then compares all the individual job descriptions, locates the two descriptions with the most similar tasks and time spent ratings, and then combines them to form a composite job description. In successive stages, new members are added to this initial group, or new groups

are formed based on the similarity of tasks and time spent ratings. The basic group used in this hierarchical clustering process is the Job. When two or more jobs have a substantial degree of similarity in tasks performed and time spent on tasks, they are grouped together and identified as a Cluster. The structure of the career ladder is then defined in terms of jobs and clusters of jobs. The resulting job structure information can be used to evaluate the accuracy of career ladder documents (i.e., AFMAN 36-2108 *Specialty Descriptions*, the Career Field Education and Training Plan, and Specialty Training Standards (STS)) and to gain a better understanding of current utilization patterns. The above terminology will be used in the discussion of the AFSC 3V0X1 career ladder structure.

Overview of Specialty Jobs

Structure analysis identified one cluster and four jobs within the survey sample. Based on task similarity and relative time spent, the jobs performed by AFSC 3V0X1 personnel are illustrated in Figure 1. A listing of those jobs is provided below. The stage (ST) number shown beside each title is a reference to computer-printed information.

- I. VIEWGRAPH JOB (ST034, N=5)
- II. ELECTRONIC IMAGING JOB (ST042, N=6)
- III. VISUAL INFORMATION GRAPHICS JOB (ST026, N=160)
- IV. MANAGEMENT AND SUPERVISION CLUSTER (ST032, N=114)
- V. PRESENTATIONS SUPPORT JOB (ST039, N=38)

The respondents forming these stages account for 88 percent of the survey sample. The remaining 12 percent were performing tasks or series of tasks that did not group with any of the defined jobs. Job titles given by respondents representative of these personnel include: Digital Imaging Specialist, NCOIC TACC Briefing, Superintendent of Operations, Briefers, Logistics Manager, and Dorm Manager.

Group Descriptions

The following paragraphs contain brief descriptions of the cluster and jobs identified through the career ladder structure analysis. Table 3 presents the average relative time spent on duties by members of these specialty jobs. Selected background data for these jobs are provided in Table 4. Representative tasks for all the jobs and the cluster are contained in Appendix A.

**AFSC 3V0X1 SPECIALTY JOBS
(N=366)**

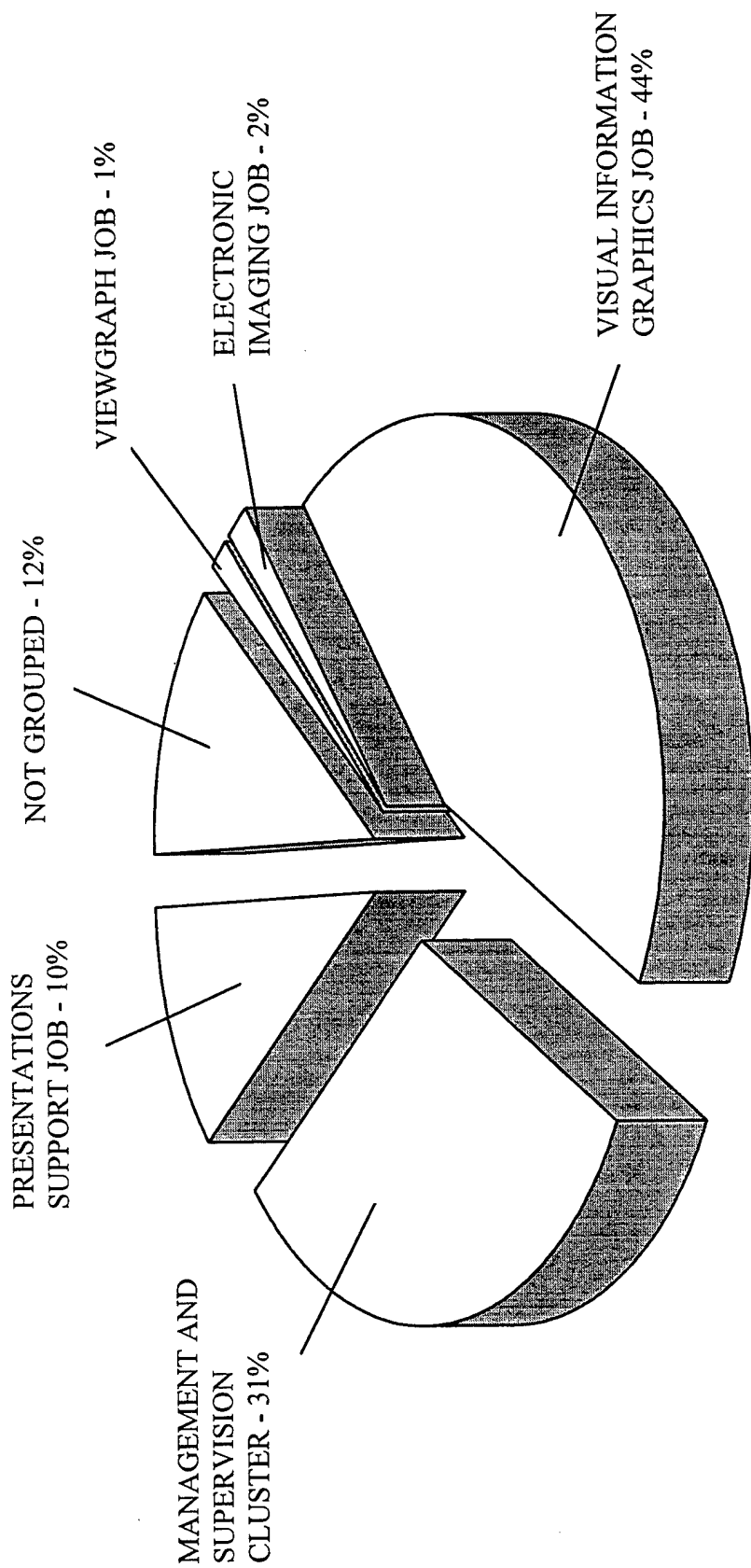


FIGURE 1

TABLE 3

AVERAGE PERCENT TIME SPENT ON DUTIES BY CAREER LADDER JOBS

DUTIES	VIEWGRAPH JOB (ST034)	ELECTRONIC IMAGING JOB (ST042)	VISUAL INFORMATION GRAPHICS JOB (ST026)	MANAGEMENT AND SUPERVISION CLUSTER (ST032)	PRESENTATIONS SUPPORT JOB (ST039)
A. PERFORMING MANAGEMENT AND SUPERVISORY ACTIVITIES	2	21	9	33	14
B. PERFORMING TRAINING ACTIVITIES	3	4	2	9	2
C. PERFORMING GENERAL ADMINISTRATIVE ACTIVITIES	3	4	4	6	4
D. PERFORMING GENERAL SUPPLY AND EQUIPMENT ACTIVITIES	2	4	6	10	20
E. PERFORMING GENERAL VISUAL INFORMATION GRAPHICS ACTIVITIES	31	14	31	12	3
F. PREPARING VIEWGRAPHS AND 35MM SLIDES	28	1	12	5	1
G. PERFORMING ELECTRONIC IMAGING SYSTEMS ACTIVITIES	30	47	26	13	4
H. PERFORMING PRESENTATIONS SUPPORT ACTIVITIES	-	5	7	8	52
I. PREPARING ANATOMICAL OR PATHOLOGICAL DRAWINGS	-	1	*	1	-
J. PREPARING MODELS, MOULAGES, EXHIBITS, OR DISPLAYS	2	-	2	1	*
K. PERFORMING MOBILITY AND CONTINGENCY ACTIVITIES	-	*	2	3	*

* Less than 1 percent

- Indicates no members performing

TABLE 4

SELECTED BACKGROUND DATA FOR SPECIALTY CLUSTERS AND JOBS

	VIEWGRAPH		ELECTRONIC IMAGING		VISUAL INFORMATION GRAPHICS		MANAGEMENT AND SUPERVISION		PRESENTATIONS SUPPORT	
	JOB		JOB		JOB		CLUSTER		JOB	
NUMBER IN GROUP	5		6		160		114		38	
PERCENT OF SAMPLE	1%		2%		44%		31%		10%	
PERCENT IN CONUS	100%		83%		76%		76%		82%	
<u>DAFSC DISTRIBUTION:</u>										
3V031	20%		0%		32%		3%		21%	
3V051	80%		50%		56%		51%		61%	
3V071	0%		50%		12%		46%		18%	
PREDOMINANT GRADE(S)	E-2/E-4		E-5		E-4		E-5/E-6		E-4/E-5	
AVG MONTHS IN CAREER FIELD	64		122		65		122		83	
AVG MONTHS IN SERVICE	67		156		76		149		90	
PERCENT IN FIRST ENLISTMENT	60%		0%		32%		2%		30%	
PERCENT SUPERVISING	0%		1%		13%		88%		13%	
AVG NUMBER OF TASKS PERFORMED	20		41		62		119		37	

Another way to illustrate the content of jobs is by summarizing tasks performed in common by incumbents across the career ladder. CODAP has a process of identifying groups of related tasks and grouping them together to form task modules (TMs). The basis for identifying these related tasks is called coperformance. Coperformance assumes that if incumbents perform task A and task B, there is a high likelihood that the two tasks share common skills and knowledge and can be trained together. CODAP calculates an index of coperformance for each task with every other task by examining the task performance patterns of all the survey respondents as a whole. Thus, the resulting TMs can be used to summarize and compare jobs. The TMs show the number of tasks included in a module, the percent time spent on tasks in that module, and average percent members performing the particular TM. Representative TMs are listed as part of the job description. The list of tasks within respective modules is presented in Appendix B.

I. VIEWGRAPH JOB (ST034). The 5 members in this job account for only 1 percent of the survey sample. These individuals perform a job very narrow in scope, performing the lowest *total* number of tasks (N=56) of any job in the survey sample. The distinguishing factor that defines the work performed by these members is not so much "what tasks are performed" but rather "what tasks are not performed." As will be discussed later, the core technical work performed by the career ladder (i.e., in the Visual Information Graphics Job) covers the total spectrum of visual information graphics tasks. These members concentrate their time almost exclusively on preparing viewgraphs, spending an average of 28 percent of their relative job time preparing viewgraphs and 35mm slides (significantly more than any other job within the survey sample). The work performed in this job is done by the least experienced incumbents in the survey sample with members averaging only a little over 5 1/2 years TAFMS. The following tasks display the limited scope of work performed by these members.

- align and mount viewgraphs
- produce viewgraphs using color printers
- produce black and white paper masters
- design layouts for viewgraphs
- scan artwork using flatbed scanners
- design layouts for posters, signs, or publication masters

Representative TMs for this job include:

TM	Module Title	No. of Tasks	Percent Time Spent Sum	Avg Pct Mbrs Perf
0001	produce masters and hardcopies	3	11	60
0006	produce and design viewgraphs	5	26	68
0058	design layouts	7	18	51

These representative TMs illustrate the concentration on producing viewgraphs.

Four of the five members in this job hold the 5-skill level. Three of these members are in their first enlistment. The predominant paygrades are E-2 and E-4 (2 respondents each).

II. ELECTRONIC IMAGING JOB (ST042). Comprised of only 6 members, these members spend almost half of their relative job time (47 percent) performing electronic imaging systems activities (significantly more time than any other job in the survey sample). The heavy concentration on these tasks breaks them apart from the core technical work performed by the majority of members in the survey. Performing these tasks tends to require seasoned expertise, as evidenced by the fact that these six members have the highest average TAFMS (averaging 13 years) than any other group within the survey. Further evidence is the fact that an additional 21 percent of their relative job time is spent on management and supervisory activities. Typical electronic imaging tasks include:

- scan artwork using flatbed scanners
- create graphics using 2-dimensional raster-based graphics
- create graphics using 2-dimensional vector-based graphics
- retouch digitized images
- conduct operator maintenance of electronic imaging system hardware
- establish electronic imaging filing systems
- evaluate electronic imaging system hardware
- create graphics using 3-dimensional modeling programs

The representative TMs for this job include:

TM	Module Title	No. of Tasks	Percent Time Spent Sum	Avg Pct Mbrs Perf
0005	create graphics with 20-dimensional graphic programs	3	9	94
0010	evaluate electronic imaging files or system hardware/software	6	13	83
0015	establish work assignments/procedures	3	6	61
0058	design layouts	7	9	43

These TMs indicate the emphasis on electronic imaging systems activities.

Three of these individuals hold the 5-skill level, while the remaining three members hold the 7-skill level DAFSC. The predominant paygrade is E-5 (i.e., three members). None of these members are in their first enlistment.

III. VISUAL INFORMATION GRAPHICS JOB (ST026). Comprising 44 percent of the survey sample, these 160 members are responsible for the core technical work performed by the career ladder. The vast majority of these NCOs are found in a base graphics shop, with the few remaining scattered amongst MAJCOM or joint command offices. Regardless of their duty location, the common denominator that binds these members is that they spend 89 percent of their relative job time performing the full gamut of visual information and graphics activities. Their responsibilities extend from "cradle to grave", from designing layouts, coordinating details with the user, producing the graphic, to finalizing the graphic. Of the average 62 tasks performed (second highest average number of tasks performed), the following tasks are representative of the scope of work performed:

- design layouts for posters, signs, or publication masters
- design layouts for certificates, awards, nameplates, or plaques
- scan artwork using flatbed scanners
- proofread final graphics
- letter certificates using laser printers
- determine graphic color schemes
- adhere artwork or photos to graphics or matte boards
- coordinate details of graphics work requests with users

The representative TMs for this job include:

TM	Module Title	No. of Tasks	Percent Time Spent Sum	Avg Pct Mbrs Perf
0001	produce masters and hardcopies	3	5	80
0006	produce and design viewgraphs	5	6	63
0007	produce 35mm slides	6	6	56
0022	determine budget requirements	3	5	80
0058	design layouts	7	14	88

These TMs illustrate the broad scope of visual information and graphic activities.

Averaging a little over 6 years time in service, 56 percent of these members hold the 5-skill level, with an additional 32 percent holding the 3-skill level. The predominant paygrade for these incumbents is E-4. Thirty-two percent of these airmen are in their first enlistment.

IV. MANAGEMENT AND SUPERVISION CLUSTER (ST032). The 114 senior NCOs in this cluster account for 31 percent of the survey sample. Performing an average of 119 tasks, these individuals perform the highest average number of tasks than for any other group in the survey sample. Illustrative of the broad job performed by these members is the fact that they are not only responsible for the day-to-day technical visual information and graphics tasks (accounting for 67 percent of their relative job time) but also supervisory and management activities (accounting for the remaining 33 percent of their relative job time). Several job variations were identified in this cluster and necessitate mentioning. These variations had varying levels of supervisory responsibilities (i.e., from first-line supervision to higher-level management). One job variation covered training responsibilities. While important to note these jobs, the work performed by these personnel centers on the technical nature of work performed with the addition of supervisory and management activities, and not on the level of supervision. Of the 380 tasks included in the JI, 378 tasks are performed by the members of this cluster in some combination. The following are examples of the type of work performed by these airmen:

- develop or establish work methods
- supervise military personnel
- scan artwork using flatbed scanners
- establish performance standards for subordinates
- coordinate purchase of visual information (VI) equipment with appropriate agencies
- design layouts for posters, signs, or publication masters
- determine or establish work assignments or priorities
- participate in general meetings, such as staff meetings, briefings, conferences, or workshops, other than training

Representative TMs for this job include:

TM	Module Title	No. of Tasks	Percent Time Spent Sum	Avg Pct Mbrs Perf
0015	establish work assignments/procedures	3	2	80
0018	general supervision and management	19	12	70
0058	design layouts	7	5	70
0062	maintain or service VI equipment	7	4	61

These TMs illustrate the scope of technical and supervisory and management activities.

With 69 percent of these members in the paygrades of E-5 or E-6 (42 percent and 27 percent, respectively), these members represent some of the most senior and experienced members in the career ladder. Averaging just under 12 1/2 years TAFMS, 51 percent of these NCOs hold the 5-skill level with an additional 46 percent holding the 7-skill level. Eighty-eight percent report supervising other subordinates.

V. PRESENTATIONS SUPPORT JOB (ST039). The 38 members in this job account for 10 percent of the survey sample. These incumbents have a very narrowly defined job, spending 52 percent of their relative job time performing presentations support activities, with an additional 20 percent of their relative job time on general supply and equipment activities. Performing an average of 37 tasks, these airmen perform only 20 tasks that account for over 50 percent of their relative job time. With 31 of these 38 members working in presentations support shops (15 members at MAJCOM level), they are responsible for the complete scheduling, set up, adjusting, and monitoring of presentations equipment and facilities. The following are representative of the type of presentations support tasks performed:

- adjust lighting in presentations facilities
- set up or operate electronic presentations systems, such as video or data projectors or video or computer inputs
- set up or operate overhead projectors
- brief speakers or instructors concerning use of presentations products, services, or techniques
- adjust VI equipment for operation
- straighten, align, or clean conference facilities

Representative TMs for this job include:

TM	Module Title	No. of Tasks	Percent Time Spent Sum	Avg Pct Mbrs Perf
0014	set up or operate electronic presentations	3	11	93
0062	maintain or service VI equipment	7	12	58
0063	set up or operate projectors/TVs/VCRs	6	18	84
0064	support presentations	4	9	61
0065	operate or copy video camera/videotapes/audiotapes	8	8	37

These TMs illustrate the concentration on presentations support activities performed by these members.

Predominantly holding the 5-skill level (61 percent), a majority of these airmen are in the paygrade of E-4 or E-5 (39 percent and 21 percent, respectively). Eighty-two percent of these incumbents indicated their job title was either Presentations Specialist or Presentations Support NCOIC.

Summary

One cluster and four jobs were identified in the career ladder structure analysis. The four jobs were directly involved in performing the technical duties and tasks pertaining to visual information and graphics activities. The cluster involved those activities necessary for management and control of the working environment along with technical functions. The majority of the members in this career ladder are performing a common core of tasks centering around visual information, associated equipment, and procedures.

ANALYSIS OF DAFSC GROUPS

An analysis of DAFSC groups, in conjunction with the analysis of the career ladder structure, is an important part of each occupational survey. The DAFSC analysis identifies differences in tasks performed at the various skill levels. This information may then be used to evaluate how

well career ladder documents, such as AFMAN 36-2108 *Specialty Descriptions* and the STS reflect what career ladder personnel are actually doing in the field and what is required of their members.

The distribution of skill-level groups across the career ladder specialty jobs is displayed in Table 5, while Table 6 offers another perspective by displaying the relative percent time spent on each duty across the skill-level groups. The Visual Information career ladder has 76 percent of the sample holding either the 3- or 5-skill level. A typical pattern of progression is present, with personnel spending more of their relative time on duties involving supervisory, managerial, and training tasks as they move upward toward the 7-skill level. It is also obvious, though, that 7-skill level personnel are still involved with technical task performance, as will be pointed out in the specific skill-level group discussions below.

Skill-Level Descriptions

Another way to illustrate these skill-level descriptions, as previously done with job descriptions, is to summarize tasks performed into TMs using the same procedure described at the beginning of the Career Ladder Structure section of this report. This allows for a very concise display of where skill-level groups spend most of their time and thus develops a comprehensive overview of each skill-level group. These modules can provide training personnel with groups of tasks on which to focus resident training and upgrade training to journeyman or craftsman. The TMs show the number of tasks included in a module, the percent time spent on tasks in that module, and an average percent members performing the particular TM. Representative TMs are listed as part of the skill-level descriptions. The list of modules with respective tasks is presented in Appendix B.

DAFSC 3V031. The 78 airmen in the 3-skill level group represent 21 percent of the survey sample. Sixty-five percent of these 3-skill level members are in the core Visual Information Graphics Job (see Table 5). They perform an average of 50 tasks, with 34 tasks accounting for over 50 percent of their relative job time. Performing a highly technical job, 91 percent of their relative duty time is devoted to technical duties covering visual information and graphics activities, including designing, preparing, producing, and finalizing graphics (see Table 6). Table 7 displays representative tasks performed by the highest percentages of these airmen.

TABLE 5

DISTRIBUTION OF DAFSC 3V0X1 GROUP MEMBERS ACROSS SPECIALTY JOBS
(PERCENT RESPONDING)

SPECIALTY JOBS	DAFSC 3V031 (N=78)	DAFSC 3V051 (N=201)	DAFSC 3V071 (N=87)
I. VIEWGRAPH JOB	1	2	-
II. ELECTRONIC IMAGING JOB	-	1	3
III. VISUAL INFORMATION GRAPHICS JOB	65	45	22
IV. MANAGEMENT AND SUPERVISION CLUSTER	4	29	60
V. PRESENTATIONS SUPPORT JOB	10	11	8
NOT GROUPED	19	11	6

- Indicates no members performing

NOTE: Columns may not add to 100 percent due to rounding or nonresponse

TABLE 6

AVERAGE PERCENT TIME SPENT PERFORMING DUTIES BY DAFSC 3V0X1 GROUPS
(RELATIVE PERCENT OF JOB TIME)

DUTIES	3V031 (N=78)	3V051 (N=201)	3V071 (N=87)
A. PERFORMING MANAGEMENT AND SUPERVISORY ACTIVITIES	7	15	30
B. PERFORMING TRAINING ACTIVITIES	2	4	7
C. PERFORMING GENERAL ADMINISTRATIVE ACTIVITIES	3	4	7
D. PERFORMING GENERAL SUPPLY AND EQUIPMENT ACTIVITIES	5	10	10
E. PERFORMING GENERAL VISUAL INFORMATION GRAPHICS ACTIVITIES	34	23	14
F. PREPARING VIEWGRAPHS AND 35MM SLIDES	11	8	5
G. PERFORMING ELECTRONIC IMAGING SYSTEMS ACTIVITIES	23	19	14
H. PERFORMING PRESENTATIONS SUPPORT ACTIVITIES	11	12	10
I. PREPARING ANATOMICAL OR PATHOLOGICAL DRAWINGS	*	*	*
J. PREPARING MODELS, MOULAGES, EXHIBITS, OR DISPLAYS	2	1	1
K. PERFORMING MOBILITY AND CONTINGENCY ACTIVITIES	3	2	2

* Less than 1 percent

NOTE: Columns may not add to 100 percent due to rounding

TABLE 7

REPRESENTATIVE TASKS PERFORMED BY DAFSC 3V031 PERSONNEL

TASKS	PERCENT MEMBERS PERFORMING (N=78)
G274 Scan artwork using flatbed scanners	86
E182 Design layouts for certificates, awards, nameplates, or plaques	83
E184 Design layouts for posters, signs, or publication masters	81
E168 Adhere artwork or photos to graphics or matte boards	73
G263 Produce black and white paper masters	68
E183 Design layouts for charts or graphs	67
E169 Adhere emblems, symbols, copy bodies, titles, or drawings on graphics or masters	65
G256 Letter certificates using laser printers	65
E185 Determine graphic color schemes	63
E213 Produce paper or parchment certificates or awards	62
E218 Proofread final graphics	62
G273 Scan artwork using film/slide scanners	60
F226 Coordinate 35mm slide processing or mounting services with photo labs	59
E207 Produce cardstock place cards	59
E200 Maintain completed artwork or masters files	56
G271 Produce viewgraphs using color printers	56
E178 Coordinate details of graphics work requests with users	55
F240 Produce 35mm slides using electronic imaging systems	55
E180 Cut illustration boards, other than matte boards	50
E181 Cut matte boards	50
G266 Produce color paper hardcopies of visual images	49
F228 Design layouts for viewgraphs	49
G246 Convert graphic file formats	47
G261 Prepare electronic presentations	47
G248 Create graphics using 2-dimensional vector-based graphics programs	46
F241 Proof 35mm slides	46
F229 Design layouts for 35mm illustrations	45
G268 Produce slides using 35mm recorders	44
F232 Prepare 35mm masters	44
F224 Align and mount viewgraphs	42

Representative TMs for this 3-skill level group include:

TM	Module Title	No. of Tasks	Percent Time Spent Sum	Avg Pct Mbrs Perf
0001	produce masters and hardcopies	3	5	61
0002	adhere work to graphics	2	4	69
0006	produce and design viewgraphs	5	5	45
0007	produce 35mm slides	6	7	49
0022	determine budget requirements	3	5	61

These TMs indicate the scope of 3-skill level members' activities and provide emphasis and direction for training, or as a minimum, a starting point for resident training, with an emphasis on general visual information and graphics activities.

DAFSC 3V051. The 201 airmen in the 5-skill level group constitute 55 percent of the survey sample and perform an average of 68 tasks, with 56 tasks accounting for over half of their relative job time. Forty-five percent of these 5-skill level members are in the core Visual Information Graphics Job, with an additional 29 percent in the Management and Supervision Cluster (see Table 5). Performing a highly technical job, 81 percent of their relative job time is devoted to duties covering general visual information and graphics activities (see Table 6). Table 8 displays representative tasks performed by the highest percentages of these airmen. Table 9 displays those tasks that reflect differences between the 3- and 5-skill level groups. A review of the tasks reveals that 5-skill level airmen perform virtually the same technical tasks as do the 3-skill level members. The 5-skill level members are primarily differentiated in that they perform limited management or supervisory functions.

TABLE 8

REPRESENTATIVE TASKS PERFORMED BY DAFSC 3V051 PERSONNEL

TASKS	PERCENT MEMBERS PERFORMING (N=201)
E182 Design layouts for certificates, awards, nameplates, or plaques	80
E184 Design layouts for posters, signs, or publication masters	76
G274 Scan artwork using flatbed scanners	74
G263 Produce black and white paper masters	67
E183 Design layouts for charts or graphs	67
E168 Adhere artwork or photos to graphics or matte boards	66
G256 Letter certificates using laser printers	64
E185 Determine graphic color schemes	63
G246 Convert graphic file formats	62
E178 Coordinate details of graphics work requests with users	61
E218 Proofread final graphics	59
G266 Produce color paper hardcopies of visual images	57
G271 Produce viewgraphs using color printers	55
G261 Prepare electronic presentations	55
E213 Produce paper or parchment certificates or awards	54
D142 Adjust VI equipment for operation	52
E180 Cut illustration boards, other than matte boards	52
F226 Coordinate 35mm slide processing or mounting services with photo labs	52
E169 Adhere emblems, symbols, copy bodies, titles, or drawings on graphics or masters	51
F224 Align and mount viewgraphs	50
A18 Determine or establish work assignments or priorities	50
F228 Design layouts for viewgraphs	49
A63 Participate in general meetings, such as staff meetings, briefings, conferences, or workshops, other than conducting	49
D161 Perform operator-level maintenance of VI equipment	49
G273 Scan artwork using film/slide scanners	48
F236 Produce viewgraphs using electronic imaging systems	48
E207 Produce cardstock place cards	47
A21 Develop or establish work methods or procedures	47
D162 Perform operator-level troubleshooting of VI equipment	47
F240 Produce 35mm slides using electronic imaging systems	47

TABLE 9

TASKS WHICH BEST DIFFERENTIATE BETWEEN DAFSC 3V031 AND DAFSC 3V051 PERSONNEL
(PERCENT MEMBERS PERFORMING)

SELECTED TASKS	3V031 (N=78)		3V051 (N=201)		DIFFERENCE
E169 Adhere emblems, symbols, copy bodies, titles, or drawings on graphics or masters	65		51		14
G273 Scan artwork using film/slide scanners	60		48		12
G274 Scan artwork using flatbed scanners	86		74		12
E207 Produce cardstock place cards	59		47		12
E200 Maintain completed artwork or masters files	56		45		11
G264 Produce charts using plotters	38		27		11
<hr/>					
A76 Supervise military personnel	1		32		-31
A18 Determine or establish work assignments or priorities	21		50		-29
A10 Conduct supervisory performance feedback sessions	3		29		-26
A14 Counsel subordinates concerning personal matters	6		31		-25
A37 Establish performance standards for subordinates	5		29		-24
A12 Coordinate purchase of electronic imaging equipment with appropriate agencies	9		32		-23
B88 Conduct OJT	21		43		-22
A13 Coordinate purchase of visual information (VI) equipment with appropriate agencies	14		36		-22
A49 Evaluate personnel for compliance with work performance standards	4		26		-22
D161 Perform operator-level maintenance of VI equipment	27		49		-22
A79 Write performance reports or supervisory appraisals	3		24		-21

Representative TMs for this 5-skill level group include:

TM	Module Title	No. of Tasks	Percent Time Spent Sum	Avg Pct Mbrs Perf
0001	produce masters and hardcopies	3	4	63
0006	produce and design viewgraphs	5	4	49
0007	produce 35mm slides	6	4	43
0018	general supervision and management	19	5	24
0022	determine budget requirements	3	4	63
0058	design layouts	7	10	69

These TMs indicate the scope of 5-skill level members' activities and provide emphasis and direction for training or as a minimum a starting point for upgrade training to journeyman, with an emphasis on general visual information and graphics activities (the same TMs as for the 3-skill level group).

DAFSC 3V071. The 87 NCOs in this 7-skill level group constitute 24 percent of the survey sample and perform an average of 97 tasks. Sixty percent of these 7-skill level members are in the Management and Supervision Cluster, with an additional 22 percent of these members in the Visual Information Graphics Job (see Table 5). Thirty-seven percent of their relative job time is spent on supervisory, management, and training duties (see Table 6). The display of tasks in Table 10 clearly shows supervisory responsibilities, and it also reflects the range and scope of the job. Table 11 displays those tasks that differentiate between the 5- and 7-skill level groups and also reflects the supervisory responsibilities' incumbent to the 7-skill level population. Tasks performed by higher percentages of 5-skill level personnel are technical and operational in nature, whereas higher percentages of 7-skill level personnel perform the higher level supervisory and management functions.

TABLE 10

REPRESENTATIVE TASKS PERFORMED BY DAFSC 3V071 PERSONNEL

TASKS	PERCENT MEMBERS PERFORMING (N=87)
A18 Determine or establish work assignments or priorities	71
A21 Develop or establish work methods or procedures	71
G274 Scan artwork using flatbed scanners	69
A63 Participate in general meetings, such as staff meetings, briefings, conferences, or workshops, other than conducting	68
E184 Design layouts for posters, signs, or publication masters	67
C117 Coordinate graphics support with appropriate agencies	66
A14 Counsel subordinates concerning personal matters	66
A76 Supervise military personnel	64
A10 Conduct supervisory performance feedback sessions	64
A16 Determine or establish logistics requirements, such as personnel, equipment, tools, parts, supplies, or workspace	64
E178 Coordinate details of graphics work requests with users	63
E182 Design layouts for certificates, awards, nameplates, or plaques	63
E183 Design layouts for charts or graphs	62
D142 Adjust VI equipment for operation	62
A13 Coordinate purchase of visual information (VI) equipment with appropriate agencies	62
A12 Coordinate purchase of electronic imaging equipment with appropriate agencies	62
D148 Identify and report equipment or supply problems	61
G261 Prepare electronic presentations	61
B88 Conduct OJT	61
E168 Adhere artwork or photos to graphics or matte boards	61
A49 Evaluate personnel for compliance with work performance standards	60
E185 Determine graphic color schemes	59
A22 Develop or establish work schedules	59
A79 Write performance reports or supervisory appraisals	59
A80 Write recommendations for awards or decorations	59
G246 Convert graphic file formats	57
E218 Proofread final graphics	57
A37 Establish performance standards for subordinates	57

TABLE 11

TASKS WHICH BEST DIFFERENTIATE BETWEEN DAFSC 3V051 AND DAFSC 3V071 PERSONNEL
(PERCENT MEMBERS PERFORMING)

SELECTED TASKS	3V051 (N=201)		3V071 (N=87)		DIFFERENCE
G263 Produce black and white paper masters	67	49	18		
E182 Design layouts for certificates, awards, nameplates, or plaques	80	63	17		
G268 Produce slides using 35mm recorders	46	32	14		
F240 Produce 35mm slides using electronic imaging systems	47	34	13		
E209 Produce color separations	34	22	12		
F231 Mount 35mm slides	30	18	12		
G256 Letter certificates using laser printers	64	53	11		
<hr/>					
A80 Write recommendations for awards or decorations	19	59	-40		
A50 Evaluate personnel for promotion, demotion, reclassification, or special awards	20	56	-36		
A10 Conduct supervisory performance feedback sessions	29	64	-35		
A43 Evaluate job or position description	12	47	-35		
A79 Write performance reports or supervisory appraisals	24	59	-35		
A14 Counsel subordinates concerning personal matters	31	66	-35		
A16 Determine or establish logistics requirements, such as personnel, equipment, tools, parts, supplies, or workspace	30	64	-34		
A49 Evaluate personnel for compliance with work performance standards	26	60	-34		
A2 Assign personnel to work crews or duty positions, other than mobility positions	13	46	-33		

Representative TMs for this 7-skill level group include:

TM	Module Title	No. of Tasks	Percent Time Spent Sum	Avg Pct Mbrs Perf
0018	general supervision and management	19	10	53
0058	design layouts	7	4	50
0062	evaluate or implement performance standards	7	4	50

These TMs indicate the scope of 7-skill members' activities and provide emphasis and direction for training or as a minimum a starting point for upgrade training to craftsman, with an emphasis on both general and specific supervisory and management activities as they apply to visual information and graphics activities.

Summary

Three- and 5-skill level airmen perform many tasks in common, and both groups spend the vast majority of their relative job time on technical AFSC-specific visual information and graphics tasks. The 5-skill level group, while performing similar 3-skill level technical tasks, perform some supervisory and management tasks. At the 7-skill level, members still perform a substantial amount of routine day-to-day technical visual information and graphics activities, but demonstrate a shift toward supervisory functions.

ANALYSIS OF MAJCOMs

Tasks and background data for personnel of the 10 MAJCOMs with the largest AFSC 3V0X1 populations were compared to determine whether job content varied as a function of command assignment.

Generally, the jobs performed across the commands were similar, with many tasks performed in common. The largest percentage of relative job time in each command is committed to tasks covering the performance of general visual information and graphics duties and electronic imaging systems activities (see Table 12). The most notable differences in percentage of relative time spent can be seen in AETC and AFOFA. For AETC, more of their relative job time is spent performing presentations support (26 percent compared to the next highest MAJCOM at 15 percent). For AFOFA, more of their relative job time is spent in electronic imaging systems and training activities (35 and 18 percent, respectively) than for any of the other nine MAJCOMs.

TABLE 12

PERCENTAGE OF TIME SPENT ON DUTIES BY 3V0X1 MAJCOM GROUPS

DUTIES	ACC (N=114)	PACAF (N=39)	AETC (N=38)	USAF (N=35)	AMC (N=35)
A. PERFORMING MANAGEMENT AND SUPERVISORY ACTIVITIES	15	19	22	22	16
B. PERFORMING TRAINING ACTIVITIES	4	3	5	4	4
C. PERFORMING GENERAL ADMINISTRATIVE ACTIVITIES	4	5	5	6	4
D. PERFORMING GENERAL SUPPLY AND EQUIPMENT ACTIVITIES	8	9	15	11	9
E. PERFORMING GENERAL VISUAL INFORMATION GRAPHICS ACTIVITIES	28	26	12	17	24
F. PREPARING VIEWGRAPHS AND 35MM SLIDES	8	9	3	9	8
G. PERFORMING ELECTRONIC IMAGING SYSTEMS ACTIVITIES	18	18	11	19	21
H. PERFORMING PRESENTATIONS SUPPORT ACTIVITIES	10	7	26	9	9
I. PREPARING ANATOMICAL OR PATHOLOGICAL DRAWINGS	*	*	1	*	*
J. PREPARING MODELS, MOULAGES, EXHIBITS, OR DISPLAYS	1	1	1	1	1
K. PERFORMING MOBILITY AND CONTINGENCY ACTIVITIES	4	1	*	2	4

* Less than 1 percent

NOTE: Columns may not add to 100 percent due to rounding

TABLE 12 (CONTINUED)

PERCENTAGE OF TIME SPENT ON DUTIES BY 3V0X1 MAJCOM GROUPS

DUTIES	AFSPC (N=26)	AFMC (N=17)	AFSOC (N=8)	AFOFA (N=6)	PACOM (N=6)
A. PERFORMING MANAGEMENT AND SUPERVISORY ACTIVITIES	12	16	11	13	20
B. PERFORMING TRAINING ACTIVITIES	5	2	4	18	7
C. PERFORMING GENERAL ADMINISTRATIVE ACTIVITIES	3	4	7	*	7
D. PERFORMING GENERAL SUPPLY AND EQUIPMENT ACTIVITIES	9	5	5	2	7
E. PERFORMING GENERAL VISUAL INFORMATION GRAPHICS ACTIVITIES	21	31	26	24	19
F. PREPARING VIEWGRAPHS AND 35MM SLIDES	12	10	8	6	9
G. PERFORMING ELECTRONIC IMAGING SYSTEMS ACTIVITIES	22	12	25	35	29
H. PERFORMING PRESENTATIONS SUPPORT ACTIVITIES	15	15	11	2	2
I. PREPARING ANATOMICAL OR PATHOLOGICAL DRAWINGS	*	1	-	-	-
J. PREPARING MODELS, MOULAGES, EXHIBITS, OR DISPLAYS	2	3	1	*	*
K. PERFORMING MOBILITY AND CONTINGENCY ACTIVITIES	*	*	3	-	*

* Less than 1 percent

- Indicates no members performing

NOTE: Columns may not add to 100 percent due to rounding

TRAINING ANALYSIS

One of the many sources of information that can be used to assist in the development of a training program relevant to the needs of personnel in their first enlistment is the OSR. Factors which may be used in evaluating training include the overall description of the job being performed by first-enlistment personnel, and their overall distribution across career ladder jobs, percentages of first-job (1-24 months TAFMS) or first-enlistment (1-48 months TAFMS) members performing specific tasks or using certain equipment or tools, as well as TE and TD ratings (previously explained in the **SURVEY METHODOLOGY** section).

To assist specifically in evaluation of the STS, an SME from Det 4, 335th TRS, Ft Meade, MD, matched JI tasks to appropriate sections and subsections of the Visual Information STS. It was this matching upon which comparison to those documents was based. A complete computer listing displaying the percent members performing tasks, TE and TD ratings for each task, along with the STS matchings, has been forwarded to the technical school for their use in further detailed reviews of appropriate training documents. A summary of this information is presented below.

First-Enlistment Personnel

In this study, there are 82 members in their first enlistment (1-48 months TAFMS), representing over 22 percent of the total survey sample. The job performed by these personnel is highly technical in nature, accounting for 94 percent of their relative duty time (see Table 13). Distribution of these personnel across the career ladder jobs is displayed in Figure 2, which shows that the vast majority of first-enlistment airmen are included in the Visual Information Graphics Job. Table 14 displays some of the average 44 tasks performed by this group and reflects general visual information, electronic imaging systems, and presentations support activities.

Representative TMs for this first-enlistment group include:

TM	Module Title	No. of Tasks	Percent Time Spent Sum	Avg Pct Mbrs Perf
0001	produce masters and hardcopies	3	5	58
0006	produce and design viewgraphs	5	5	44
0007	produce 35mm slides	6	6	39
0021	determine budget requirements	3	5	58
0058	design layouts	7	14	66

TABLE 13

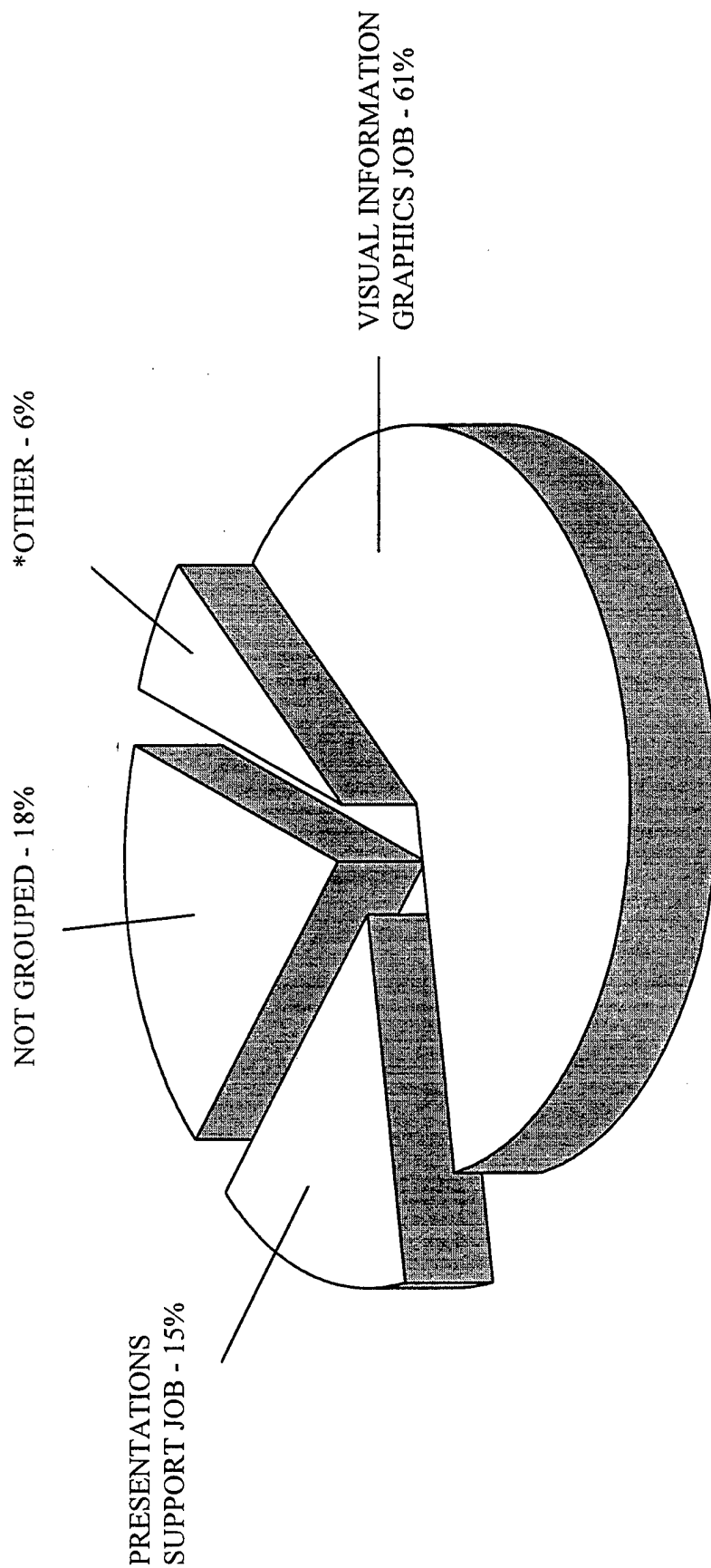
RELATIVE PERCENT OF TIME SPENT ON DUTIES
BY 3V0X1 FIRST-ENLISTMENT PERSONNEL

DUTIES	PERCENT MEMBERS PERFORMING (N=82)
A. PERFORMING MANAGEMENT AND SUPERVISORY ACTIVITIES	5
B. PERFORMING TRAINING ACTIVITIES	1
C. PERFORMING GENERAL ADMINISTRATIVE ACTIVITIES	3
D. PERFORMING GENERAL SUPPLY AND EQUIPMENT ACTIVITIES	6
E. PERFORMING GENERAL VISUAL INFORMATION GRAPHICS ACTIVITIES	32
F. PREPARING VIEWGRAPHS AND 35MM SLIDES	11
G. PERFORMING ELECTRONIC IMAGING SYSTEMS ACTIVITIES	21
H. PERFORMING PRESENTATIONS SUPPORT ACTIVITIES	16
I. PREPARING ANATOMICAL OR PATHOLOGICAL DRAWINGS	*
J. PREPARING MODELS, MOULAGES, EXHIBITS, OR DISPLAYS	2
K. PERFORMING MOBILITY AND CONTINGENCY ACTIVITIES	2

* Less than 1 percent

NOTE: Columns may not add to 100 percent due to rounding

DISTRIBUTION OF AFSC 3V0X1 FIRST-ENLISTMENT PERSONNEL ACROSS SPECIALTY JOBS (N= 82)



* INCLUDES:
VIEWGRAPH JOB
MANAGEMENT AND SUPERVISORY CLUSTER

FIGURE 2

TABLE 14

REPRESENTATIVE TASKS PERFORMED BY FIRST-ENLISTMENT PERSONNEL

SELECTED TASKS	PERCENT MEMBERS PERFORMING (N=82)
E182 Design layouts for certificates, awards, nameplates, or plaques	80
E184 Design layouts for posters, signs, or publication masters	78
G274 Scan artwork using flatbed scanners	78
E168 Adhere artwork or photos to graphics or matte boards	72
G263 Produce black and white paper masters	65
E183 Design layouts for charts or graphs	60
G256 Letter certificates using laser printers	60
E169 Adhere emblems, symbols, copy bodies, titles, or drawings on graphics or masters	59
E185 Determine graphic color schemes	57
E213 Produce paper or parchment certificates or awards	55
E218 Proofread final graphics	55
G273 Scan artwork using film/slide scanners	54
E207 Produce cardstock place cards	54
F226 Coordinate 35mm slide processing or mounting services with photo labs	54
E178 Coordinate details of graphics work requests with users	51
G271 Produce viewgraphs using color printers	50
E200 Maintain completed artwork or masters files	50
G266 Produce color paper hardcopies of visual images	50
E180 Cut illustration boards, other than matte boards	48
F228 Design layouts for viewgraphs	48
F224 Align and mount viewgraphs	46
E181 Cut matte boards	45
G248 Create graphics using 2-dimensional vector-based graphics programs	44
F240 Produce 35mm slides using electronic imaging systems	44
G261 Prepare electronic presentations	44
G246 Convert graphic file formats	43
F225 Coordinate format preparations for viewgraph masters with customers	41
H294 Set up or operate electronic presentations systems, such as	40

These TMs indicate the scope of first-enlistment members' activities and provide emphasis and direction for training or at least a starting point for resident training. These TMs illustrate the wide variance in activities performed by these members.

One of the objectives of this survey project was to gather data for the Training Wing pertaining to the various types of media, electronic imaging systems or software, equipment, fundamentals of drawing, and forms used. Accordingly, Tables 15-20 present percentages of first-job and first-enlistment airmen responding to these questions concerning their activities involving these items. Information was gathered on:

- 14 types of media (4 of which had responses greater than 20 percent (see Table 15))
- 52 types of electronic imaging systems or software (11 of which had responses greater than 30 percent (see Tables 16 and 17))
- 74 different pieces of equipment used (34 of which had responses of greater than 20 percent; Table 18 displays those with 50 percent members performing or higher)
- 9 fundamentals of drawing (all 9 had responses greater than 20 percent (see Table 19))
- 21 forms (4 of which had responses greater than 10 percent (see Table 20))

These tables illustrate the large variety of equipment, systems, procedures, and forms used by the largest percentage of these members to perform their job. This type of information is useful for both technical school and MAJCOM training personnel to assist them in focusing limited training time or other resources on the most utilized items.

TE and TD Data

TE and TD data are secondary factors that can assist technical school personnel in deciding which tasks should be emphasized in entry-level training. These ratings, based on the judgments of senior career ladder NCOs working at operational units in the field, are collected to provide training personnel with a rank ordering of those tasks in the JI considered important for first-enlistment training (TE) (see Table 21 for the top-rated tasks), along with a measure of the difficulty (TD) of the JI tasks (see the highest rated tasks presented in Table 22). A total of 64 tasks were rated high in TE, having a rating of over 3.85. Tasks rated highest in TE are technical tasks which include: performing electronic imaging systems tasks, such as creating and scanning artwork and designing layouts for visual information products and graphics. These tasks are rated high in TE and viewed as necessary for training of first-enlistment personnel and are viewed as somewhat difficult to learn. Tasks rated high in TD involve supervisory and management activities such as drafting budget requirements, and planning for deployments. Other tasks high in TD include technical tasks, such as preparing anatomical or pathological drawings, and final preparation of visual information products and graphics. When combined with data on the percentages of first-enlistment personnel performing tasks, comparisons can then be made to determine if training adjustments are necessary. For example, tasks receiving high ratings on both

TABLE 15

TYPES OF MEDIA USED BY 20 PERCENT OR MORE OF 3V0X1
FIRST-JOB OR FIRST-ENLISTMENT PERSONNEL

SELECTED TYPES OF MEDIA USED	PERCENT MEMBERS PERFORMING	
	1ST JOB (N=48)	1ST ENL (N=82)
None	40	40
Inks	35	33
Markers	38	39
Pencils	33	35
Vinyl Letterings	19	23

TABLE 16

ELECTRONIC IMAGING SYSTEMS USED BY 5 PERCENT OR MORE OF 3V0X1
FIRST-JOB OR FIRST-ENLISTMENT PERSONNEL

SELECTED ELECTRONIC IMAGING SYSTEMS USED	PERCENT MEMBERS PERFORMING	
	1ST JOB (N=48)	1ST ENL (N=82)
None	4	5
Mainframe Computer	8	5
Operating Systems, such as Amiga, Macintosh, Sun, Unix, or IBM Compatible	83	87

TABLE 17

**ELECTRONIC IMAGING SYSTEMS SOFTWARE USED BY 30 PERCENT OR MORE OF
3V0X1 FIRST-JOB OR FIRST-ENLISTMENT PERSONNEL**

<u>SELECTED ELECTRONIC IMAGING SYSTEMS SOFTWARE USED</u>	<u>PERCENT MEMBERS PERFORMING</u>	
	<u>1ST JOB (N=48)</u>	<u>1ST ENL (N=82)</u>
Adobe Illustrator	33	34
Adobe Pagemaker	50	51
Adobe Photoshop	75	78
Clip Art	88	77
Corel Draw	85	82
Microsoft Excel	42	48
Microsoft Mail	56	49
Microsoft Powerpoint	94	93
Microsoft Windows	81	76
Microsoft Word	83	84

TABLE 18

EQUIPMENT USED OR OPERATED BY 50 PERCENT OR MORE OF 3V0X1
FIRST-JOB OR FIRST-ENLISTMENT PERSONNEL

SELECTED EQUIPMENT USED OR OPERATED	PERCENT MEMBERS PERFORMING	
	1ST JOB (N=48)	1ST ENL (N=82)
Bernoulli Boxes	56	51
Copiers, Color Laser	65	72
Cutters, Paper	71	68
Printers, Ink-Jet	56	52
Printers, Laser	90	90
Printers, Poster	54	51
Projectors, Overhead	50	54
Projectors, 35mm Slide	56	60
Scanners, Flat Bed, Color, or Black and White	85	83
Scanners, 35mm	50	51
Scissors	77	74
Straightedges	60	61
Tables, Light	63	66
Tables, Work	58	50
T-Squares	65	56
Xacto Knives or Scalpels	81	82

TABLE 19

FUNDAMENTALS OF DRAWING USED BY 20 PERCENT OR MORE OF 3V0X1
FIRST-JOB OR FIRST-ENLISTMENT PERSONNEL

SELECTED FUNDAMENTALS OF DRAWING USED	PERCENT MEMBERS PERFORMING	
	1ST JOB (N=48)	1ST ENL (N=82)
None	21	26
Color Media	38	30
Color Theory	60	46
Contour	27	21
Design and Layout	77	65
Form	38	33
Perspective, Linear	31	27
Perspective, Nonlinear	21	20
Proportion	60	52
Shading and Shadow	50	39

TABLE 20

FORMS USED BY 10 PERCENT OR MORE OF 3V0X1
FIRST-JOB OR FIRST-ENLISTMENT PERSONNEL

SELECTED FORMS USED	PERCENT MEMBERS PERFORMING	
	1ST JOB (N=48)	1ST ENL (N=82)
None	19	16
AF 9 (Request for Purchase)	13	15
AF 833 (Visual Information Support Request)	73	73
AF 1297 (Temporary Issue Receipt)	29	35
AF 2005 (Issue/Turn-In)	77	65

TABLE 21

TECHNICAL TASKS RATED HIGHEST IN TRAINING EMPHASIS (TE)
BY AFSC 3V0X1 PERSONNEL

SELECTED TASKS	TNG EMP*	PERCENT MEMBERS PERFORMING		TASK DIFF**
		1ST JOB (N=48)	1ST ENL (N=82)	
G274 Scan artwork using flatbed scanners	6.95	81	78	4.54
G248 Create graphics using 2-dimensional vector-based graphics programs	6.55	48	44	5.79
G273 Scan artwork using film/slide scanners	6.32	52	54	4.54
E184 Design layouts for posters, signs, or publication masters	6.23	77	78	5.35
G247 Create graphics using 2-dimensional raster-based graphics programs	6.09	38	34	5.72
E182 Design layouts for certificates, awards, nameplates, or plaques	5.82	83	80	5.10
E185 Determine graphic color schemes	5.77	58	57	5.15
E218 Proofread final graphics	5.64	54	55	4.81
G256 Letter certificates using laser printers	5.32	58	60	3.95

* TE MEAN = 2.27; S.D. = 1.58 (High TE = >3.85)

** TD MEAN = 5.00; S.D. = 1.00

TABLE 22

TASKS RATED HIGHEST IN TASK DIFFICULTY (TD) BY AFSC 3V0X1 PERSONNEL

SELECTED TASKS	TASK DIFF*	PERCENT MEMBERS PERFORMING					TNG EMP**
		1ST JOB (N=48)	1ST ENL (N=82)	DAFSC 3V051	DAFSC 3V071		
G250 Create graphics using 3-dimensional rendering and animation programs	7.38	4	5	12	18	5.59	
G251 Develop animations using electronic imaging systems	7.33	4	6	12	16	5.27	
A31 Draft budget requirements	7.11	0	0	14	46	2.00	
A65 Plan deployments of equipment or personnel	6.97	0	0	12	17	1.23	
E188 Draw figures using linear perspective	6.76	15	11	14	22	3.23	
E210 Produce comprehensive drawings	6.73	19	17	22	24	4.59	
H286 Produce multimedia presentations using electronic imaging systems	6.41	21	17	24	23	5.05	
G248 Create graphics using 2-dimensional vector-based graphics programs	5.79	48	44	43	44	6.55	
H294 Set up or operated electronic presentations systems, such as video or data projectors or video or computer inputs	5.73	38	40	37	39	3.77	
G247 Create graphics using 2-dimensional raster-based graphics programs	5.72	38	34	44	48	6.09	
G272 Retouch digitized images	5.60	25	32	37	34	5.14	
E184 Design layouts for posters, signs, or publication masters	5.35	77	78	76	67	6.23	
G261 Prepare electronic presentations	5.22	42	44	55	61	6.73	

* TD MEAN = 5.00 S.D. = 1.00

** TE MEAN = 2.27 S.D. = 158 (High TE = >3.85)

task factors, accompanied by moderate to high percentages performing, may warrant resident training. Those tasks receiving high task factor ratings, but low percentages performing, may be more appropriately planned for OJT programs within the career ladder. Low task factor ratings may highlight tasks best omitted from training for first-enlistment personnel, but this decision must be weighed against percentages of personnel performing the tasks, command concerns, and criticality of the tasks.

To assist training development personnel, the AFOMS developed a computer program that incorporates these secondary factors and the percentage of first-enlistment personnel performing each task to produce an Automated Training Indicator (ATI) for each task. ATIs correspond to training decisions listed and defined in the Training Decision Logic Table found in Attachment 2, AETCI 36-3601. ATIs allow training developers to quickly focus attention on those basic tasks which are most likely to qualify for resident training.

Various lists of tasks, accompanied by TE and TD ratings, and where appropriate, ATI information, are contained in the TRAINING EXTRACT package and should be reviewed in detail by technical school personnel. (For a more detailed explanation of TE and TD ratings, see Task Factor Administration in the SURVEY METHODOLOGY section of this report.)

Specialty Training Standard (STS)

A comprehensive review of STS 3V0X1, dated April 1997, compared STS items to survey data based on the previously mentioned match of tasks to STS elements. STS paragraphs containing general knowledge information, mandatory entries, subject-matter-knowledge-only requirements, or basic supervisory responsibilities were not examined. Task knowledge, performance elements, and dashed (-) items of the STS were compared against the standard set forth in AETCI 36-2601. Typically, STS elements matched to tasks which have sufficiently high TE and TD ratings and are performed by at least 20 percent of a criterion group (i.e., 1-48 months TAFMS, and 5- and 7-skill level groups), should be considered for inclusion in the STS. Likewise, elements matched to tasks with less than 20 percent performing in all of these groups should be considered for deletion from the STS.

Using this criterion, STS 3V0X1 was found to be supported by occupational survey data. Overall, the STS captures the work performed by this career field. Of the 27 performance coded items in the STS, 3 were found to be unsupported by occupational survey data. These same 3 STS unsupported items have performance codes indicating they should be taught to the '2b' level. Training personnel should review these items to justify being taught at the '2b' level given the percentages of incumbents performing in the criterion groups. Examples of these unsupported items can be found in Table 23. These unsupported performance coded items were subparagraphs covering video editors/duplicators, audio capture, and animation using three-dimensional methods. Training personnel and SMEs should review these areas to determine if inclusion in future revisions to the STS is warranted.

TABLE 23

EXAMPLES OF 3V0X1 STS ELEMENTS NOT SUPPORTED BY SURVEY DATA
(LESS THAN 20 PERCENT MEMBERS PERFORMING)

STS ITEMS (WITH SELECTED MATCHED TASKS)	3-LVL COURSE PROF CODE	TNG EMP*	PERCENT MEMBERS PERFORMING				TASK DIFF**
			1ST	DAFSC	DAFSC	3V071 (N=87)	
			ENL	3V051	DAFSC		
			(N=82)	(N=201)			
8.4.11 Video editors/duplicators	2b						
H284 Set up or operate video editors or duplicators		2.14	10	11	13	5.99	
H284 Edit videotapes		1.09	13	16	16	5.94	
13.3.2.3.3 Audio capture	2b						
G243 Capture audio using audio digitizing devices		3.05	5	10	15	5.34	
H281 Copy audiotapes		1.50	9	10	9	3.42	
13.4.8.2 Animation - Three dimensional	2b						
G250 Create graphics using 3-dimensional rendering and animation programs		5.59	5	12	18	7.38	
G249 Create graphics using 3-dimensional modeling programs		4.86	2	11	18	7.24	

* TE MEAN = 2.27 S.D. = 1.58 (High TE = >3.85)

** TD MEAN = 5.00 S.D. = 1.00

Tasks not matched to any entry of the STS, (accounting for 23 percent (N=88) of all technical tasks) are listed at the end of the STS computer listing. These were reviewed extensively to determine if there were any tasks concentrated around any particular functions or jobs. While no particular trends were found, a general statement regarding the large number of tasks appears warranted. The AFSC-awarding course for this career field is an "all" services course, and as such includes only those initial skills required of all services. Specific Air Force entries and concerns in some instances become the responsibility of the receiving organization. Examples of technical tasks performed by at least 20 percent of the STS criterion group respondents, but which are not referenced to any STS element, are displayed in Table 24. While some of these tasks are high in TE and moderate in TD, percent members performing figures indicated training personnel and SMEs should review these and other unreferenced tasks to determine STS inclusion.

Training Program of Instruction (TPI)

The TPI for AFSC 3V0X1, titled AFIS-BGR, Basic Graphics Production, is dated January 1997. JI tasks were matched to related functional areas of the TPI, with the assistance of Det 4, 335 TRS, Ft Meade, MD. The method employed was similar to that of the STS analysis. The data examined included percent members performing data for first-job (1-24 months TAFMS) personnel, first-enlistment (1-48 months TAFMS) personnel, and TE and TD ratings.

TPI functional areas were compared to the standard set forth in AETCI 36-2601 (30 percent or more of the first-enlistment group performing tasks trained, along with sufficiently high TE and TD ratings on those tasks). By this guidance, tasks trained in the course which do not meet these criteria should be considered for elimination from the formal course, if not justified on some other acceptable basis.

Using this criterion, AFIS-BGR, Basic Graphics Production, was generally found to be marginally supported by occupational survey data. Of the 21 behavioral objectives in the TPI, 9 were found to be unsupported by occupational survey data. Examples of these unsupported behavioral objectives can be found in Table 25. These unsupported behavioral objectives included tasks covering reduction and enlargement of graphics, applying basic tools to create a lettering guide, lettering materials, using the free-hand development method, using a graphics imaging system, and producing gray and color imagery. Training personnel and SMEs should review these areas to determine if inclusion in future revisions to the TPI is warranted.

Tasks not matched to any functional area of the TPI, (accounting for 41 percent (N=154) of all technical tasks) are listed at the end of the TPI computer listing. These were reviewed extensively to determine if there were any tasks concentrated around any particular functions or jobs. While no particular trends were found, a general statement regarding the large number of tasks appears warranted. As mentioned previously, the AFSC-awarding course for this career field is part of an "all" services course, and as such includes only those initial skills required of all services. Specific Air Force entries and concerns in some instances become the responsibility of the receiving organization. Examples of technical tasks performed by at least 30 percent of the

TABLE 24

EXAMPLES OF TECHNICAL TASKS PERFORMED BY 20 PERCENT OR MORE
AND NOT REFERENCED TO THE 3V0X1 STS

SELECTED TASKS	PERCENT MEMBERS PERFORMING					TASK DIFF**
	1ST ENL (N=82)	DAFSC 3V051 (N=201)	DAFSC 3V071 (N=87)	TNG EMP*		
C117 Coordinate graphics support with appropriate agencies	17	38	66	3.95		4.92
C137 Maintain VI work order logs	26	40	40	3.50		4.14
C140 Safeguard classified materials	11	22	34	4.09		4.29
E178 Coordinate details of graphics work requests with users	51	61	63	5.50		4.31
E199 Load film or paper in copy camera machines	34	24	16	2.73		3.59
E207 Produce cardstock place cards	54	47	44	3.91		3.85
E212 Produce graphs, such as bar, graduated, or line	37	41	45	5.09		4.92
F224 Align and mount viewgraphs	46	50	47	3.95		3.12
F226 Coordinate 35mm slide processing or mounting services with photo labs	54	52	46	4.59		3.74
J335 Shape foam core boards for graphic displays	21	23	23	2.00		5.53

* TE MEAN = 2.28; S.D. = 1.58 (High TE = >3.85)

** TD MEAN = 5.00; S.D. = 1.00

TABLE 25

EXAMPLES OF TPI, AFIS-BGR, BASIC GRAPHICS PRODUCTION
ELEMENTS NOT SUPPORTED BY SURVEY DATA
(LESS THAN 30 PERCENT MEMBERS PERFORMING)

TPI ITEMS (WITH SELECTED MATCHED TASKS)	TNG EMP*	PERCENT MEMBERS PERFORMING			TASK DIFF**
		1ST JOB (N=48)	1ST ENL (N=82)		
I.1.2 Use the Proportional Scale to solve reduction and enlargement problems					
E0191 Draw reduced or enlarged graphic products using projection devices	3.77	13	10		4.28
I.1.5 Apply basic tools to create a lettering guide					
E197 Letter materials, such as charts, posters, wood, Plexiglas, or certificates, using brush lettering	3.27	0	2		6.60
III.3.8 Draw a caricature drawing using free-hand development method					
E189 Draw freehand illustrations, such as cartoons, landscapes, or still life drawings	4.55	15	13		6.56
IV.4.2 Identify terminology and basic facts associated with a graphic imaging system					
G259 Maintain internal electronic imaging system files	5.86	21	18		4.55
V.5.1 Produce gray scale and color imagery					
G251 Develop animations using electronic imaging systems	5.27	4	6		7.33
G252 Develop electronic color palettes	4.86	10	12		5.43

* TE MEAN = 2.27; S.D. = 1.58 (High TE = >3.85)

** TD MEAN = 5.00; S.D. = 1.00

TPI criterion group respondents, but which are not reference to any TPI element, are displayed in Table 26. While some of these tasks are high in TE and moderate in TD, percent members performing figures indicated training personnel and SMEs should review these and other unreferenced tasks to determine TPI inclusion.

JOB SATISFACTION ANALYSIS

An examination of the job satisfaction indicators of various groups can give career ladder managers a better understanding of some of the factors that may effect the job performance of airmen in the career ladder. Questions covering job interest, perceived utilization of talents and training, sense of accomplishment from work, and reenlistment intentions were included in the survey booklet to provide indications of job satisfaction.

Table 27 presents job satisfaction data for AFSC 3V0X1 TAFMS groups, together with data for a comparative sample of direct support career ladders surveyed in 1996. These data can give a relative measure of how the job satisfaction of AFSC 3V0X1 personnel compares with other similar Air Force specialties. Review of Table 27 reflects that responses from AFSC 3V0X1 TAFMS groups regarding use of talents, use of training, and sense of accomplishment gained from work are for the most part on par with the comparative sample with only slight variances either higher or lower. For all TAFMS groups in the current study, respondents indicated higher job interest than for those in the comparative sample. The 1-48 and the 49-96 TAFMS months' groups in the current study had lower positive responses than were noted in reenlistment intentions for the comparative sample.

Finally, Table 28 presents job satisfaction responses from personnel in the specialty jobs discussed in the **SPECIALTY JOBS** section of this report. An examination of these data can show how overall job satisfaction may be influenced by the type of job performed. Review of the job satisfaction data for the Visual Information career ladder reveals generally positive responses in the five job satisfaction indicators.

A few jobs within this study revealed low ratings for some of the five job satisfaction indicators. Personnel in both the Viewgraph Job and Presentations Support Job revealed less than positive responses (lower than 50 percent responding positively) for interest in their jobs and perceived utilization of talents and training. Additionally, personnel in the Presentations Support Job had positive responses in only 2 of the 5 job satisfaction indicators and those responses were marginally positive (only slightly over 50 percent members responding positively). Only 50 percent of the personnel in the Electronic Imaging Job (lowest percentage for all groups) stated they would reenlist; these members hold the highest average TAFMS for the career field.

When there are serious problems in a career ladder, survey respondents are usually quite free with write-in comments to complain about perceived problems in the field. Twenty percent of the survey sample (N=74) used the write-in feature to convey some type of information. No major

TABLE 26

EXAMPLES OF TECHNICAL TASKS PERFORMED BY 30 PERCENT OR MORE
AND NOT REFERENCED TO THE TPI, AFIS-BGR, BASIC GRAPHICS PRODUCTION

SELECTED TASKS	PERCENT MEMBERS PERFORMING			TNG EMP*	TASK DIFF**
	1ST JOB (N=48)	1ST ENL (N=82)			
E169 Adhere emblems, symbols, copy bodies, titles, or drawings on graphics or masters	63	59		4.32	3.48
E178 Coordinate details of graphics work requests with users	42	51		5.50	4.31
E181 Cut matte boards	46	45		4.59	4.12
E183 Design layouts for charts or graphs	54	60		5.73	4.82
E213 Produce paper or parchment certificates or awards	54	55		4.68	4.93
F225 Coordinate format preparations for viewgraph masters with customers	33	41		4.91	4.29
F226 Coordinate 35mm slide processing or mounting services with photo labs	50	54		4.59	3.74
F231 Mount 35mm slides	31	35		3.77	3.04
G256 Letter certificates using laser printers	58	60		5.32	3.95
G265 Produce color hardcopies using poster printers	33	30		5.36	4.56
H294 Set up or operate electronic presentations systems, such as video or data projectors or video or computer inputs	38	40		3.77	5.73
H302 Set up or operate 35mm slide projectors	40	35		3.26	3.77

* TE MEAN = 2.28; S.D. = 1.58 (High TE = >3.85)

** TD MEAN = 5.00; S.D. = 1.00

TABLE 27

COMPARISON OF JOB SATISFACTION INDICATORS FOR AFSC 3V0X1
TAFMS GROUPS IN CURRENT STUDY TO A COMPARATIVE SAMPLE
(PERCENT MEMBERS RESPONDING)

	1-48 MONTHS TAFMS		49-96 MONTHS TAFMS		97+ MONTHS TAFMS	
	3V0X1 (N=82)	COMP SAMPLE (N=1,606)	3V0X1 (N=102)	COMP SAMPLE (N=1,024)	3V0X1 (N=182)	COMP SAMPLE (N=2,244)
<u>EXPRESSED JOB INTEREST:</u>						
INTERESTING	74	57	75	60	84	72
SO-SO	13	24	12	22	10	17
DULL	12	19	13	18	7	11
<u>PERCEIVED UTILIZATION OF TALENTS:</u>						
FAIRLY WELL TO PERFECTLY	68	68	82	68	80	79
LITTLE OR NOT AT ALL	32	33	19	32	19	21
<u>PERCEIVED UTILIZATION OF TRAINING:</u>						
FAIRLY WELL TO PERFECTLY	76	80	75	77	79	86
LITTLE OR NOT AT ALL	23	20	25	23	21	23
<u>SENSE OF ACCOMPLISHMENT GAINED FROM WORK:</u>						
SATISFIED	68	61	75	62	80	71
NEUTRAL	10	19	10	17	8	11
DISSATISFIED	22	20	15	22	12	18
<u>REENLISTMENT INTENTIONS:</u>						
YES OR PROBABLY YES	52	59	63	74	77	75
NO OR PROBABLY NO	45	41	37	26	6	8
WILL RETIRE	0	*	0	*	16	16

* Less than 1 percent

NOTE: Columns may not add to 100 percent due to rounding or nonresponse
Comparative sample of DIRECT SUPPORT career ladders surveyed in 1996. (Includes AFSCs 1TXXX, 3VXXX, 1WXXX, 2RXXX, 2TXXX, 3EXXX, 2S0XX, 3PXXX, and 7S0X1)

TABLE 28

COMPARISON OF JOB SATISFACTION INDICATORS FOR MEMBERS OF SPECIALTY CLUSTERS AND JOBS
(PERCENT MEMBERS RESPONDING)

	VIEWGRAPH JOB	ELECTRONIC IMAGING JOB	VISUAL INFORMATION GRAPHICS JOB	MANAGEMENT AND SUPERVISION CLUSTER	PRESENTATIONS SUPPORT JOB
<u>EXPRESSED JOB INTEREST:</u>					
INTERESTING	(40)	67	88	88	(47)
SO-SO	60	17	6	7	26
DULL	0	17	6	5	26
<u>PERCEIVED USE OF TALENTS:</u>					
FAIRLY WELL TO PERFECTLY	(40)	67	88	86	(34)
LITTLE OR NOT AT ALL	60	33	13	14	63
<u>PERCEIVED USE OF TRAINING:</u>					
FAIRLY WELL TO PERFECTLY	(40)	83	85	82	(47)
LITTLE TO NOT AT ALL	60	17	15	18	53
<u>SENSE OF ACCOMPLISHMENT GAINED FROM WORK:</u>					
SATISFIED	60	67	83	81	53
NEUTRAL	20	17	6	9	11
DISSATISFIED	20	17	11	11	37
<u>REENLISTMENT INTENTIONS:</u>					
PLAN TO REENLIST	80	50	71	75	50
PLAN NOT TO REENLIST	20	33	26	9	39
PLAN TO RETIRE	0	17	1	16	11

NOTE: Columns may not add to 100 percent due to rounding or nonresponse

deficiencies were evident. Many respondents used the write-in comments to provide information about themselves and their jobs. Of the 74 write-in comments, 53 percent provided demographic information, while the remaining 47 percent of the comments covered additional equipment, general information, media types used, and additional tasks. No particular trends or areas of concern were evident.

IMPLICATIONS

This survey was part of the normal analysis cycle of career fields. The purpose of this survey was to gather data for the AFSC as a result of the merger of AFSC 231X0 (Audiovisual Media) and AFSC 231X1 (Graphics) in October 1992 into the AFSC 3V0X1, Visual Information career ladder.

Survey results described in the **SPECIALTY JOBS** section clearly suggest personnel in the Visual Information Graphics Job make up the bulk of the career ladder and perform a job broader in scope than any other job identified in the career ladder. These members perform the complete gamut of visual information and graphics activities.

Specialty descriptions for this career ladder accurately describe the work performed by members. Members progress typically through the career ladder.

STS 3V0X1 is generally supported by occupational survey data. Only 3 of 27 performance codes in the STS were not supported. TPI, AFIS-BGR, and Basic Graphics Production are marginally supported by occupational data. Nine of 21 behavioral objections were not supported.

Members of the Visual Information career ladder appear fairly satisfied with their jobs, revealing generally positive responses in all five of the job satisfaction indicators.

The information from this OSR comes directly from survey data collected from visual information and graphics personnel worldwide. These data are readily available to training personnel, functional managers, and any interested parties having a need for such information. More detailed information is compiled and presented in training and analysis extracts. These extracts provide an excellent resource and tool for managers in making decisions affecting their career fields.

APPENDIX A

**SELECTED REPRESENTATIVE TASKS PERFORMED BY
MEMBERS OF CAREER LADDER JOBS**

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TABLE I
VIEWGRAPH JOB (ST034)

GROUP SIZE: 5
 PERCENT OF SAMPLE: 1%
 PREDOMINANT GRADE: E-2/4
 AVERAGE NUMBER OF TASKS PERFORMED: 20

AVERAGE TICF: 64 MOS
 AVERAGE TAFMS: 67 MOS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING (PMP):

REPRESENTATIVE TASKS	PMP
F224 Align and mount viewgraphs	100
G263 Produce black and white paper masters	100
G274 Scan artwork using flatbed scanners	100
G271 Produce viewgraphs using color printers	80
F228 Design layouts for viewgraphs	80
E184 Design layouts for posters, signs, or publication masters	80
E183 Design layouts for charts or graphs	60
E213 Produce paper or parchment certificates or awards	60
E182 Design layouts for certificates, awards, nameplates, or plaques	60
E168 Adhere artwork or photos to graphics or matte boards	60
E211 Produce electrostatic transparencies	40
F225 Coordinate format preparations for viewgraph masters with customers	40
F233 Produce viewgraph overlays	40
F236 Produce viewgraphs using electronic imaging systems	40
G266 Produce color paper hardcopies of visual images	40
E193 Dry mount graphic products	40
G256 Letter certificates using laser printers	40
G246 Convert graphic file formats	40
F232 Prepare 35mm masters	40
J335 Shape foam core boards for graphic displays	40
G265 Produce color hardcopies using poster printers	40
E179 Cover charts with acetate	40
E207 Produce cardstock place cards	40

TABLE II
ELECTRONIC IMAGING JOB (ST042)

GROUP SIZE: 6
PERCENT OF SAMPLE: 2%
PREDOMINANT GRADE: E-5
AVERAGE NUMBER OF TASKS PERFORMED: 41

AVERAGE TICF: 122 MOS
AVERAGE TAFMS: 156 MOS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING (PMP):

REPRESENTATIVE TASKS	PMP
G274 Scan artwork using flatbed scanners	100
G247 Create graphics using 2-dimensional raster-based graphics programs	100
G248 Create graphics using 2-dimensional vector-based graphics programs	100
G253 Establish electronic imaging filing systems	100
G273 Scan artwork using film/slide scanners	83
G272 Retouch digitized images	83
G245 Conduct operator maintenance of electronic imaging system hardware	83
G246 Convert graphic file formats	83
G254 Evaluate electronic imaging system hardware	83
G258 Maintain electronic imaging system backup files	83
G255 Evaluate electronic imaging system software	83
A18 Determine or establish work assignments or priorities	67
C117 Coordinate graphics support with appropriate agencies	67
G249 Create graphics using 3-dimensional modeling programs	67
G259 Maintain internal electronic imaging system files	67
E182 Design layouts for certificates, awards, nameplates, or plaques	50
A21 Develop or establish work methods or procedures	50
G271 Produce viewgraphs using color printers	50
G262 Produce artwork using digitizing tablets	50
E183 Design layouts for charts or graphs	50
G260 Photograph artwork using digital cameras	50
B88 Conduct OJT	50
G256 Letter certificates using laser printers	50
D147 Evaluate serviceability of equipment, tools, parts, or supplies	50
A12 Coordinate purchase of electronic imaging equipment with appropriate agencies	50

TABLE III
VISUAL INFORMATION GRAPHICS JOB (ST026)

GROUP SIZE: 160
PERCENT OF SAMPLE: 44%
PREDOMINANT GRADE: E-4
AVERAGE NUMBER OF TASKS PERFORMED: 62

AVERAGE TICF: 65 MOS
AVERAGE TAFMS: 76 MOS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING (PMP):

REPRESENTATIVE TASKS	PMP
E182 Design layouts for certificates, awards, nameplates, or plaques	98
E184 Design layouts for posters, signs, or publication masters	94
G274 Scan artwork using flatbed scanners	94
E183 Design layouts for charts or graphs	89
G263 Produce black and white paper masters	86
G256 Letter certificates using laser printers	83
E185 Determine graphic color schemes	83
E218 Proofread final graphics	82
E168 Adhere artwork or photos to graphics or matte boards	81
E178 Coordinate details of graphics work requests with users	77
E213 Produce paper or parchment certificates or awards	76
G271 Produce viewgraphs using color printers	73
G266 Produce color paper hardcopies of visual images	72
G246 Convert graphic file formats	69
E169 Adhere emblems, symbols, copy bodies, titles, or drawings on graphics or masters	69
G261 Prepare electronic presentations	68
F226 Coordinate 35mm slide processing or mounting services with photo labs	68
E207 Produce cardstock place cards	68
F228 Design layouts for viewgraphs	67
E180 Cut illustration boards, other than matte boards	63
G273 Scan artwork using film/slide scanners	63
F224 Align and mount viewgraphs	61
E212 Produce graphs, such as bar, graduated, or line	61
E200 Maintain completed artwork or masters files	60
F240 Produce 35mm slides using electronic imaging systems	59
F236 Produce viewgraphs using electronic imaging systems	59

TABLE IV

MANAGEMENT AND SUPERVISION CLUSTER (ST032)

GROUP SIZE: 114

AVERAGE TICF: 122 MOS

PERCENT OF SAMPLE: 31%

AVERAGE TAFMS: 149 MOS

PREDOMINANT GRADE: E-5/6

AVERAGE NUMBER OF TASKS PERFORMED: 119

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS
PERFORMING (PMP):

REPRESENTATIVE TASKS		PMP
A21	Develop or establish work methods or procedures	86
B88	Conduct OJT	84
A63	Participate in general meetings, such as staff meetings, briefings, conferences, or workshops, other than conducting	84
A18	Determine or establish work assignments or priorities	84
A76	Supervise military personnel	79
A37	Establish performance standards for subordinates	79
A10	Conduct supervisory performance feedback sessions	77
E184	Design layouts for posters, signs, or publication masters	76
A14	Counsel subordinates concerning personal matters	76
A13	Coordinate purchase of visual information (VI) equipment with appropriate agencies	75
E182	Design layouts for certificates, awards, nameplates, or plaques	75
A79	Write performance reports or supervisory appraisals	75
A59	Inspect personnel for compliance with military standards	75
G274	Scan artwork using flatbed scanners	74
A49	Evaluate personnel for compliance with work performance standards	74
A12	Coordinate purchase of electronic imaging equipment with appropriate agencies	73
A50	Evaluate personnel for promotion, demotion, reclassification, or special awards	73
D142	Adjust VI equipment for operation	72
A9	Conduct supervisory orientations for newly assigned personnel	72
G246	Convert graphic file formats	70
A29	Direct training functions	70
A15	Critique presentations or briefings	70
A80	Write recommendations for awards or decorations	70

TABLE V

PRESENTATIONS SUPPORT JOB (ST039)

GROUP SIZE: 38
 PERCENT OF SAMPLE: 10%
 PREDOMINANT GRADE: E-4/5
 AVERAGE NUMBER OF TASKS PERFORMED: 37

AVERAGE TICF: 83 MOS
 AVERAGE TAFMS: 90 MOS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS
 PERFORMING (PMP):

REPRESENTATIVE TASKS	PMP
H275 Adjust lighting in presentation facilities	100
H296 Set up or operate overhead projectors	97
H294 Set up or operate electronic presentations systems, such as video or data projectors or video or computer inputs	92
H302 Set up or operate 35mm slide projectors	89
H277 Brief speakers or instructors concerning use of presentation products, services, or techniques	87
H303 Set up presentation facilities, such as positioning furniture, setting room temperature, or selecting lighting controls	82
H295 Set up or operate monitors or TVs	82
H300 Set up or operate videocassette players or recorders	82
D142 Adjust VI equipment for operation	76
H305 Straighten, align, or clean conference facilities	71
H290 Schedule use of presentations equipment	68
D160 Perform operational checks of VI equipment	66
H289 Schedule presentation facilities	63
H292 Set up audio systems, such as amplifiers, mixers, loudspeakers, or microphones	63
D162 Perform operator-level troubleshooting of VI equipment	61
D161 Perform operator-level maintenance of VI equipment	58
H304 Set up screens	58
D163 Perform periodic inspections of VI equipment	55
H297 Set up or operate sound or slide projectors, other than 35mm slide projectors	50
H298 Set up or operate video cameras	50
A28 Direct presentations support functions	50

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APPENDIX B
TASK MODULES FOR CAREER LADDER JOBS

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These Task Modules (TMs) were developed to illustrate the content of jobs by summarizing tasks performed in common by incumbents across the Visual Information career ladder. These TMs were derived by statistical clustering process in CODAP that identifies groups of related tasks and groups them together to form TMs. The process for identifying these related tasks is called copformance. Copformance assumes that if incumbents perform task A and task B, there is a high likelihood that these two tasks share common skills and knowledge and can be trained together. For example, if an individual performs one visual information graphics task, the probability is very high that he or she also will perform other similar tasks. Thus, the group of tasks can be considered a "natural group" of associated or related tasks (see TM 0001) below. CODAP calculates an index of co-performance for each task with every other task by examining the task performance patterns of all the survey respondents as a whole. The statistical clustering generally approximated these "natural groupings."

The title of each TM is our best estimate as to the general subject content of the group of tasks. These TMs are useful for organizing the task data into meaningful units and as a way to concisely summarize the extensive job data. However, TMs are only one way to organize the information. Other strategies may also be valid.

0001	ST326	Produce masters and hardcopies
1	G256	Letter certificates using laser printers
2	G263	Produce black and white paper masters
3	G266	Produce color paper hardcopies of visual images
0002	ST341	Adhere work to graphics
1	E168	Adhere artwork or photos to graphics or matte boards
2	E169	Adhere emblems, symbols, copy bodies, titles, or drawings on graphics or masters
0003	ST335	Produce certificates, awards, or place cards
1	E207	Produce cardstock place cards
2	E213	Produce paper or parchment certificates or awards
0004	ST281	Prepare electronic presentations or scan artwork
1	G261	Prepare electronic presentations
2	G273	Scan artwork using film/slide scanners
0005	ST302	Create graphics with 2-dimensional graphic programs
1	G246	Convert graphic file formats
2	G247	Create graphics using 2-dimensional raster-based graphics programs
3	G248	Create graphics using 2-dimensional vector-based graphics programs

0006	ST289	Produce and design viewgraphs
1	F224	Align and mount viewgraphs
2	F225	Coordinate format preparations for viewgraph masters with customers
3	F228	Design layouts for viewgraphs
4	F236	Produce viewgraphs using electronic imaging systems
5	G271	Produce viewgraphs using color printers
0007	ST288	Produce 35mm slides
1	F226	Coordinate 35mm slide processing or mounting services with photo labs
2	F229	Design layouts for 35mm illustrations
3	F232	Prepare 35mm masters
4	F240	Produce 35mm slides using electronic imaging systems
5	F241	Proof 35mm slides
6	G268	Produce slides using 35mm recorders
0008	ST115	Produce transparencies/viewgraphs using electrostatic process
1	E211	Produce electrostatic transparencies
2	F230	Instruct customers on self-help viewgraph layouts
3	F237	Produce viewgraphs using electrostatic process
4	G270	Produce viewgraphs using black and white laser printers
0009	ST118	Handle film/negatives/slides
1	E199	Load film or paper in copy camera machines
2	F227	Cut or trim negative film for mounting
3	F231	Mount 35mm slides
0010	ST236	Evaluate electronic imaging files or system hard/software
1	G245	Conduct operator maintenance of electronic imaging system hardware
2	G253	Establish electronic imaging filing systems
3	G254	Evaluate electronic imaging system hardware
4	G255	Evaluate electronic imaging system software
5	G258	Maintain electronic imaging system backup files
6	G259	Maintain internal electronic imaging system files
0011	ST196	Produce multimedia presentations
1	G267	Produce presentations using multimedia software
2	H286	Produce multimedia presentations using electronic imaging systems
0012	ST348	Capture video/audio using digitizing means
1	G243	Capture audio using audio digitizing devices
2	G244	Capture video using video digitizing boards

0013	ST240	Maintain equipment/tools/parts/supplies
1	D165	Pick up or deliver equipment, tools, parts, or supplies
2	D167	Store equipment, tools, parts, or supplies
0014	ST346	Set up or operate electronic presentations
1	H275	Adjust lighting in presentation facilities
2	H277	Brief speakers or instructors concerning use of presentation products, services, or techniques
3	H294	Set up or operate electronic presentations systems, such as video or data projectors or video or computer inputs
0015	ST244	Establish work assignments/procedures
1	A18	Determine or establish work assignments or priorities
2	A21	Develop or establish work methods or procedures
3	C117	Coordinate graphics support with appropriate agencies
0016	ST366	Coordinate purchase of VI/electronic imaging equipment
1	A12	Coordinate purchase of electronic imaging equipment with appropriate agencies
2	A13	Coordinate purchase of visual information (VI) equipment with appropriate agencies
0017	ST273	Determine work schedules/priorities
1	A22	Develop or establish work schedules
2	A53	Evaluate work schedules
3	A54	Evaluate workload requirements
4	A69	Plan or schedule work assignments or priorities
0018	ST251	General supervision and management
1	A9	Conduct supervisory orientations for newly assigned
2	A14	Counsel subordinates concerning personal matters
3	A29	Direct training functions
4	A37	Establish performance standards for subordinates
5	A49	Evaluate personnel for compliance with work performance standards
6	A50	Evaluate personnel for promotion, demotion, reclassification, or special awards
7	A56	Initiate actions required due to substandard performance of personnel
8	A59	Inspect personnel for compliance with military standards
9	A60	Interpret policies, directives, or procedures for subordinates
10	A73	Schedule personnel for temporary duty (TDY) assignments, leaves, or passes
11	A76	Supervise military personnel
12	A79	Write performance reports or supervisory appraisals
13	A80	Write recommendations for awards or decorations
14	B90	Counsel trainees on training progress
15	B91	Determine training requirements

0018	ST251	General supervision and management (Continued)
16	B99	Evaluate personnel to determine training needs
17	B100	Evaluate progress of trainees
18	B104	Maintain training records or files
0019	ST231	Evaluate logistic requirements or use of equip/tool
1	A36	Establish organizational policies, such as operating instructions (OIs) or standard operating procedures (SOPs)
2	A44	Evaluate job-related suggestions
3	A46	Evaluate logistics requirements, such as personnel, equipment, tools, parts, supplies, or workspace
4	A47	Evaluate maintenance or utilization of equipment, tools, parts, supplies, or workspace
0020	ST280	Direct and develop training
1	B95	Develop training programs, plans, or procedures
2	B96	Direct in-house training programs
0021	ST274	Schedule training
1	B106	Plan or schedule training
2	B110	Schedule personnel for training
0022	ST326	Determine budget requirements
1	G256	Letter certificates using laser printers
2	G263	Produce black and white paper masters
3	G266	Produce color paper hardcopies of visual images
0023	ST286	Write job/position descriptions
1	A43	Evaluate job or position descriptions
2	A78	Write job or position descriptions
0024	ST265	Layout facilities or plan equipment maintenance
1	A45	Evaluate layouts of facilities
2	A66	Plan equipment or facility maintenance requirements
3	A67	Plan equipment replacement programs
4	A68	Plan layouts of facilities
0025	ST277	Plan or evaluate safety/security programs
1	A52	Evaluate safety or security programs
2	A70	Plan safety or security programs

0026	ST198	Maintain continuity/administrative files/folders
1	C123	Initiate continuity folders
2	C130	Maintain administrative files
3	C131	Maintain continuity folders
4	C132	Maintain documentation files
0027	ST229	Coordinate equipment maintenance
1	D143	Coordinate contract maintenance of VI equipment with supply functions or contractors
2	D144	Coordinate maintenance of equipment with appropriate agencies, other than contract maintenance
0028	ST188	Manage supplies
1	D145	Coordinate supply-related matters with appropriate agencies
2	D149	Initiate documentation to turn in excess or surplus property
3	D150	Initiate letters of justification for supply-related matters VI equipment
0029	ST086	Handle classified materials
1	C113	Annotate security forms for facilities or security containers
2	C119	Destroy classified materials
3	C121	Identify and report suspected security compromises
4	C140	Safeguard classified materials
0030	ST266	Design or mount wall displays/murals
1	J328	Design wall displays or murals
2	J331	Mount wall displays or murals
0031	ST101	Draw or produce sketches/illustrations/drawings
1	E175	Clean paint brushes
2	E176	Clean pens using ultrasonic cleaners
3	E177	Clean pens, other than using ultrasonic cleaners
4	E188	Draw figures using linear perspective
5	E189	Draw freehand illustrations, such as cartoons, landscapes; or still life drawings
6	E190	Draw pencil guidelines
7	E191	Draw reduced or enlarged graphic products using projection devices
8	E192	Draw technical illustrations, other than medical illustrations
9	E196	Letter materials, such as charts, posters, Plexiglas, or certificates, using freehand pen techniques
10	E210	Produce comprehensive drawings
11	E216	Produce rough sketches, such as thumbnail or preliminary, other than for anatomical drawings

0032	ST256	Mix paints or clean airbrushes
1	E173	Clean airbrush parts
2	E203	Mix water-base paints
0033	ST246	Operate or schedule VTC
1	H278	Brief visitors concerning video teleconferencing center (VTC) room procedures and operation
2	H279	Coordinate availability of VTC satellite times with appropriate agencies
3	H285	Maintain VTC utilization data
4	H291	Schedule VTC satellite times
5	H301	Set up or operate VTC equipment
6	H306	Troubleshoot VTC systems
0034	ST089	Conduct or document training/conferences/briefings
1	B89	Conduct training conferences, briefings, or debriefings
2	C141	Write minutes of briefings, conferences, or meetings
0035	ST114	Develop, evaluate, or brief effectiveness of training
1	B85	Brief organizational personnel concerning training programs or matters
2	B94	Develop training materials or aids
3	B97	Establish or maintain study reference files
4	B98	Evaluate effectiveness of training programs, plans, or procedures
5	B103	Inspect training materials or aids for operation or suitability
6	B105	Personalize lesson plans
* 0036	ST305	Handle TDY orders
1	C118	Coordinate obtaining TDY orders with appropriate agencies
2	C126	Initiate requests for TDY orders
0037	ST177	Develop self-inspection/resource protection program
1	A24	Develop resource protection programs
2	A25	Develop self-inspection or self-assessment program checklists
3	A71	Plan self-inspection or self-assessment programs
0038	ST0	Establish admin files/lists or draft supplements/changes
1	A33	Draft supplements or changes to directives, such as regulations, manuals, or indexes
2	A34	Establish access lists
3	A35	Establish administrative files, such as correspondence files or classified files

0039	ST140	Prepare personnel actions for deployment
1	A32	Draft inputs for status of resources, training, and supplies (SORTS) program
2	A58	Initiate personnel action requests
3	A65	Plan deployments of equipment or personnel
0040	ST184	Work with contingency/mobility/base support plans
1	A20	Develop inputs to mobility, contingency, disaster preparedness, or unit emergency or alert plans
2	A48	Evaluate mobility, contingency, disaster preparedness, or unit emergency or alert plans
3	A62	Maintain or update contingency plans, mobility plans, or base support plans
0041	ST270	Handle host-tenant/interservice agreements
1	A11	Coordinate host-tenant or interservice agreements with appropriate agencies
2	A57	Initiate host-tenant or interservice agreements
0042	ST120	Assign instructors for or evaluate training
1	B84	Assign formal course instructors or on-the-job training (OJT) trainers or certifiers
2	B101	Evaluate training methods or techniques of instructors
3	B102	Evaluate training requirements for instructors
0043	ST149	Supervise civilians
1	A1	Annotate time and attendance sheets for civilian employees
2	A75	Supervise civilian employees
0044	ST063	Handle accidents/incidents
1	A39	Evaluate accident or incident reports
2	A61	Investigate accidents or incidents
3	A74	Schedule staff assistance visits, inspections, or audits
4	A77	Write inspection reports
5	A81	Write replies to inspection reports
6	A82	Write staff studies, surveys, or routine reports, other than training or inspection reports
7	C115	Complete accident or incident reports
0045	ST067	Initiate or handle security violations/materials
1	C125	Initiate reports of security violations
2	C138	Prepare administrative or classified materials for mailing, transporting, or issue

0046	ST095	Maintain accountability for classified materials/documents
1	C120	Establish accountability records for classified materials or documents
2	C122	Initiate classified reports, messages, or documents
3	C128	Inventory classified materials
4	C129	Maintain accountability records for classified materials or documents
0047	ST285	Determine or coordinate TV graphics requirements
1	H280	Coordinate graphic requirements with television (TV) writers or directors
2	H283	Determine TV graphics size requirements
0048	ST021	Maintain libraries/publications/records
1	C134	Maintain publication libraries
2	C135	Maintain records of learning center usage
3	C136	Maintain technical order files
4	C139	Review publishing bulletins
0049	ST207	Handle plaques
1	E194	Engrave plaques
2	E214	Produce plaques
0050	ST129	Prepare equipment for deployments
1	K350	Don or doff chemical warfare personal protective clothing
2	K355	Identify equipment or personnel requirements for mobility exercises or deployments
3	K356	Inspect mobility bags or kits
4	K357	Inspect packed or palletized mobility or contingency equipment prior to transport
5	K363	Pack or palletize mobility or contingency equipment for shipment or movement
6	K368	Perform pallet build-up activities
7	K371	Prepare equipment for deployments
0051	ST142	Erect or tear down tents/shelter
1	K352	Erect camouflage nettings
2	K353	Erect tents
3	K375	Set up or tear down shelters
0052	ST065	Set up shelter/site security
1	K361	Operate field generators during contingency exercises or operations
2	K364	Perform camouflage procedures
3	K365	Perform camp security
4	K369	Perform predeployment reconnaissance surveys
5	K370	Perform site security
6	K376	Set up site security

0053	ST074	Conduct or coordinate mobility exercises
1	K338	Conduct mobility exercise or deployment site surveys
2	K339	Conduct mobility or contingency procedure orientations or briefings
3	K343	Coordinate exercise sourcing requirements with functional managers
4	K344	Coordinate mobility exercise or contingency requirements with appropriate agencies
5	K351	Draft or write mobility exercise or deployment after-action reports
0054	ST071	Produce viewgraphs with pencil/marker/diazo process
1	F234	Produce viewgraph reversal film
2	F235	Produce viewgraphs using diazo process
3	F238	Produce viewgraphs using grease pencils or projectable markers
4	F242	Splice transparencies into viewgraphs
0055	ST169	Develop or handle diazo materials
1	E172	Change chemical solutions in copy camera machines
2	E174	Clean glass cylinders in diazo reproduction machines
3	E186	Develop diazo materials, other than for viewgraphs
0056	ST314	Design medical illustrations
1	I308	Coordinate drawing details with physicians or other medical personnel
2	I310	Design compositions for medical illustrations
3	I311	Draw medical illustrations
0057	ST217	Prepare surgical or operation room sketches
1	I312	Monitor medical procedures to obtain details for anatomical or pathological renderings
2	I313	Photograph surgical procedures in operating rooms
3	I318	Prepare sequential operating procedures sketches
4	I319	Prepare sketches in operating rooms or morgues
5	I320	Research medical libraries or medical illustration drawing morgues
0058	GP001	Design layouts
1	E178	Coordinate details of graphics work requests with users
2	E182	Design layouts for certificates, awards, nameplates, or plaques
3	E183	Design layouts for charts or graphs
4	E184	Design layouts for posters, signs, or publication masters
5	E185	Determine graphic color schemes
6	E218	Proofread final graphics
7	G274	Scan artwork using flatbed scanners

0059	GP003	Produce graphs or charts
1	E181	Cut matte boards
2	E208	Produce charts, other than using plotters
3	E212	Produce graphs, such as bar, graduated, or line
0060	GP004	Produce digital artwork
1	G252	Develop electronic color palettes
2	G260	Photograph artwork using digital cameras
3	G262	Produce artwork using digitizing tablets
0061	GP005	Create graphics/animations
1	G249	Create graphics using 3-dimensional modeling programs
2	G250	Create graphics using 3-dimensional rendering and animation programs
3	G251	Develop animations using electronic imaging systems
4	G269	Produce videotape hardcopies of electronic imagery
0062	GP006	Maintain or service VI equipment
1	D142	Adjust VI equipment for operation
2	D147	Evaluate serviceability of equipment, tools, parts, or supplies
3	D160	Perform operational checks of VI equipment
4	D161	Perform operator-level maintenance of VI equipment
5	D162	Perform operator-level troubleshooting of VI equipment
6	D163	Perform periodic inspections of VI equipment
7	D164	Perform preventive maintenance of VI equipment, such as cleaning or lubricating
0063	GP007	Set up or operate projectors/TVs/VCRs
1	H295	Set up or operate monitors or TVs
2	H296	Set up or operate overhead projectors
3	H300	Set up or operate videocassette players or recorders
4	H302	Set up or operate 35mm slide projectors
5	H303	Set up presentation facilities, such as positioning furniture, setting room temperature, or selecting lighting controls
6	H305	Straighten, align, or clean conference facilities
0064	GP008	Support presentations
1	H289	Schedule presentation facilities
2	H290	Schedule use of presentations equipment
3	H292	Set up audio systems, such as amplifiers, mixers, loudspeakers, or microphones
4	H297	Set up or operate sound or slide projectors, other than 35mm slide projectors

0065	GP009	Operate or copy video cameras/videotapes/audiotapes
1	H276	Assign personnel to assist in presentations
2	H281	Copy audiotapes
3	H282	Copy videotapes
4	H284	Edit videotapes
5	H288	Produce videotapes
6	H293	Set up or operate audio recording devices
7	H298	Set up or operate video cameras
8	H299	Set up or operate video editors or duplicators
0066	GP010	Establish or evaluate storage procedures
1	A7	Conduct self-inspections or self-assessments
2	A38	Establish procedures for accountability of equipment, tools, parts, or supplies
3	A51	Evaluate procedures for storage, inventory, or inspection of property items
0067	ST0	GP011 - inventory and issue property
1	D153	Inventory equipment, tools, parts, or supplies, other than VI projection equipment
2	D154	Inventory VI projection equipment
3	D155	Issue or log turn-ins of equipment, tools, parts, or supplies, other than VI equipment
4	D156	Maintain benchstock parts or equipment levels
5	D158	Maintain organizational equipment or supply records, such as custodian authorization/custody receipt listings (CA/CRLs)
0068	ST0	GP012 - schedule, maintain, or inspect equipment
1	C133	Maintain or update status indicators, such as boards, graphs, or charts
2	D146	Develop equipment checklists
3	D152	Inspect VI equipment for grounding
4	D166	Schedule VI equipment for inspection, cleaning, or preventive maintenance
0069	GP013	Mount illustrations/photos
1	J329	Mount illustrations or photographs on display or exhibit sections
2	J335	Shape foam core boards for graphic displays
0070	GP014	Plan or construct displays/exhibits
1	E220	Scale graphic products using mechanical aids, such as scalers or proportional dividers
2	J324	Construct display or exhibit sections, such as panels, boards, or tables
3	J333	Plan layouts for displays or exhibits

0071	GP015	Finish or store graphics/displays
1	E170	Adhere pressure-sensitive or press-on lettering to graphic products, such as charts or Vu-graph masters
2	E187	Dismantle or store reusable display materials or equipment
3	E221	Spray finished artwork with fixatives
4	E223	Tape protective covers on finished graphics
0072	GP016	Letter materials or line graphics
1	E195	Ink lines on graphics
2	E197	Letter materials, such as charts, posters, wood, Plexiglas, or certificates, using brush lettering
3	E198	Letter materials, such as charts, posters, wood, Plexiglas, or certificates, using felt-tip markers
4	E222	Tape lines on graphics
0073	GP017	Conduct training
1	B83	Administer or score tests
2	B86	Complete student entry or withdrawal forms
3	B87	Conduct formal course classroom training
4	B92	Develop formal course curricula, plans of instructions (POIs), or specialty training standards (STSs)
5	B93	Develop performance tests
6	B107	Prepare command standard training packages
7	B108	Prepare job qualification standards (JQSs)
8	B109	Procure training aids, space, or equipment
9	B111	Write test questions
10	B112	Write training reports
0074	GP018	Perform mobility activities
1	K336	Assign personnel to mobility positions
2	K337	Brief deploying personnel
3	K341	Conduct mobility training
4	K347	Develop mobility inspection checklists
5	K348	Develop personnel recall and accounting procedures
6	K349	Develop workcenter pyramid recall plans
7	K354	Identify chemical warfare agents
8	K359	Monitor mobility deployments kits
9	K366	Perform chemical warfare agent decontamination procedures
10	K377	Tear down, inspect, clean, and reassemble weapons, such as M-16 rifles
11	K379	Verify eligibility of tasked personnel for deployment

0075	GP019	Prepare or design anatomical/pathological drawings
1	I309	Coordinate requirements for anatomical or pathological renderings with appropriate agencies
2	I314	Prepare composites or rough pencil layouts for anatomical drawings
3	I315	Prepare drawings of pathological or disease characteristics of anatomical specimens
4	I316	Prepare final anatomical or pathological color renderings
5	I317	Prepare final anatomical or pathological line drawings
6	I322	Shade final anatomical or pathological line drawings
0076	Tasks not referenced	
1	A2	Assign personnel to work crews or duty positions, other than mobility positions
2	A3	Assign sponsors for newly assigned personnel
3	A4	Complete USAF Graduate Evaluation Program forms or questionnaires
4	A5	Conduct general meetings, such as staff meetings, briefings, conferences, or workshops
5	A6	Conduct safety inspections of equipment or facilities
6	A8	Conduct staff assistance visits, inspections, or audits
7	A15	Critique presentations or briefings
8	A16	Determine or establish logistics requirements, such as personnel, equipment, tools, parts, supplies, or workspace
9	A17	Determine or establish publication requirements
10	A19	Determine security classifications for unit generated documents
11	A23	Develop organizational or functional charts
12	A26	Direct administrative functions
13	A27	Direct electronic imaging functions
14	A28	Direct presentations support functions
15	A30	Draft agenda for general meetings, such as staff meetings, briefings, conferences, or workshops
16	A31	Draft budget requirements
17	A40	Evaluate budget requirements
18	A41	Evaluate inspection report findings or inspection procedures
19	A42	Evaluate job hazards or compliance with Air Force Occupational Safety and Health (AFOSH) Program
20	A55	Indorse performance reports or supervisory appraisals
21	A63	Participate in general meetings, such as staff meetings, briefings, conferences, or workshops, other than conducting
22	A64	Plan briefings, conferences, or workshops
23	A72	Review drafts of regulations, manuals, or other directives
24	B88	Conduct OJT
25	C114	Compile data for records, reports, logs, or trend analyses
26	C116	Complete computer system review documents
27	C124	Initiate or maintain standby rosters or workcenter pyramid recall rosters
28	C127	Initiate SORTS reports
29	C137	Maintain VI work order logs
30	D148	Identify and report equipment or supply problems
31	D157	Maintain documentation on items requiring periodic inspections

0076 Tasks not referenced (Continued)

32	D159	Maintain precision measurement equipment (PME) calibration schedules
33	E171	Apply shading sheets or Scotch-Cal film to graphic products
34	E179	Cover charts with acetate
35	E180	Cut illustration boards, other than matte boards
36	E193	Dry mount graphic products
37	E200	Maintain completed artwork or masters files
38	E201	Mix oil-base paints
39	E202	Mix or add chemicals for copy camera machines
40	E204	Participate in precious metals recovery program
41	E205	Perform operator maintenance on copy camera machines
42	E206	Perform operator maintenance on electrostatic copying machines
43	E209	Produce color separations
44	E215	Produce plaster-of-Paris molds for plaques or awards
45	E217	Produce tracing paper transfer sheets
46	E219	Replenish developing systems for diazo equipment
47	F233	Produce viewgraph overlays
48	F239	Produce viewgraphs using thermofax film
49	G257	Letter certificates using plotters
50	G264	Produce charts using plotters
51	G265	Produce color hardcopies using poster printers
52	G272	Retouch digitized images
53	H287	Produce multimedia presentations using 35mm slide projectors, desolve units, and audio systems
54	H304	Set up screens
55	I307	Animate medical illustrations
56	I321	Set up interactive anatomical video presentations
57	I323	Videotape surgical procedures in operation rooms
58	J325	Coordinate display or exhibit details with physicians or medical agency personnel
59	J326	Coordinate model or moulage details with physicians or other medical personnel
60	J327	Design exhibit frames
61	J330	Mount projection screens or projectors on display or exhibit sections
62	J332	Plan information sequencing for displays or exhibits
63	J334	Prepare final multiview anatomical drawings for models or moulage constructions
64	K340	Conduct mobility surveillance visits
65	K342	Coordinate deployment of personnel with other MAJCOM or joint service commands
66	K345	Determine cost-factors for support agreements
67	K346	Develop centralized in and out processing procedures to support mobility, contingency, or exercise requirements
68	K358	Maintain accountability of personnel selected to fill operations plan (OPLANs) requirements
69	K360	Monitor suspenses from units on contingency taskings
70	K362	Operate portable radios, such as field radios during contingency exercises or operations
71	K367	Perform explosive ordnance reconnaissance
72	K372	Process classified materials or documents at deployed locations
73	K373	Provide OPLANs requirement status listings to unit commanders

0076 Tasks not referenced (Continued)

74	K374	Review availability status of personnel for deployments
75	K378	Transport mobility or contingency equipment to or from deployed locations
76	K380	Verify personnel possess passports for mobility requirements

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